

# Immunotag™ TFIIH p89 Monoclonal Antibody

| Antibody Specification |                                                                                                                                                                                                                                                  |
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| Catalog No.            | ITM1106                                                                                                                                                                                                                                          |
| Product Description    | Immunotag™ TFIIH p89 Monoclonal Antibody                                                                                                                                                                                                         |
| Size                   | 50 µg, 100 µg                                                                                                                                                                                                                                    |
| Conjugation            | HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647                                                                                                                    |
| IMPORTANT NOTE         | This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.                                                                               |
| Target Protein         | TFIIH p89                                                                                                                                                                                                                                        |
| Clonality              | Monoclonal                                                                                                                                                                                                                                       |
| Storage/Stability      | -20°C/1 year                                                                                                                                                                                                                                     |
| Application            | WB                                                                                                                                                                                                                                               |
| Recommended Dilution   | Western Blot: 1/1000 - 1/2000. Not yet tested in other applications.                                                                                                                                                                             |
| Concentration          | 1 mg/ml                                                                                                                                                                                                                                          |
| Reactive Species       | Human,Mouse,Rat,Bovine,Dog                                                                                                                                                                                                                       |
| Host Species           | Mouse                                                                                                                                                                                                                                            |
| Immunogen              | Purified recombinant human TFIIH p89 (C-terminus) protein fragments expressed in Ecoli                                                                                                                                                           |
| Specificity            | TFIIH p89 Monoclonal Antibody detects endogenous levels of TFIIH p89 protein.                                                                                                                                                                    |
| Purification           | Affinity purification                                                                                                                                                                                                                            |
| Form                   | Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol.                                                                                                                     |
| Gene Name              | ERCC3                                                                                                                                                                                                                                            |
| Accession No.          | P19447 P49135 Q4G005                                                                                                                                                                                                                             |
| Alternate Names        | ERCC3; XPB; XPBC; TFIIH basal transcription factor complex helicase XPB subunit; Basic transcription factor 2 89 kDa subunit; BTF2 p89; DNA excision repair protein ERCC-3; DNA repair protein complementing XP-B cells; TFIIH basal transcripti |

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| Description                 | ERCC excision repair 3, TFIIH core complex helicase subunit(ERCC3) Homo sapiens This gene encodes an ATP-dependent DNA helicase that functions in nucleotide excision repair. The encoded protein is a subunit of basal transcription factor 2 (TFIIH) and, therefore, also functions in class II transcription. Mutations in this gene are associated with Xeroderma pigmentosum B, Cockayne's syndrome, and trichothiodystrophy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2014],                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Cell Pathway/<br>Category   | Nucleotide excision repair,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Protein<br>Expression       | Adipose tissue,Epithelium,Placenta,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Subcellular<br>Localization | core TFIIH complex,nucleus,nucleoplasm,transcription factor TFIIID complex,holo TFIIH complex,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Protein Function            | disease:Defects in ERCC3 are a cause of trichothiodystrophy photosensitive (TTDP) [MIM:601675]. TTDP is an autosomal recessive disease characterized by sulfur-deficient brittle hair and nails, ichthyosis, mental retardation, impaired sexual development, abnormal facies and cutaneous photosensitivity correlated with a nucleotide excision repair (NER) defect. Neonates with trichothiodystrophy and ichthyosis are usually born with a collodion membrane. The severity of the ichthyosis after the membrane is shed is variable, ranging from a mild to severe lamellar ichthyotic phenotype. There are no reports of skin cancer associated with TTDP.,disease:Defects in ERCC3 are the cause of xeroderma pigmentosum complementation group B (XP-B) [MIM:610651]; also known as xeroderma pigmentosum II (XP2) or XP group B (XPB) or xeroderma pigmentosum group B combined with Cockayne syndrome (XP-B/CS). Xeroderma pigmentosum is an autosomal recessive pigmentary skin disorder characterized by solar hypersensitivity of the skin, high predisposition for developing cancers on areas exposed to sunlight and, in some cases, neurological abnormalities. Some XP-B patients present features of Cockayne syndrome, including dwarfism, sensorineural deafness, microcephaly, mental retardation, pigmentary retinopathy, ataxia, decreased nerve conduction velocities.,function:ATP-dependent 3'-5' DNA helicase, component of the core-TFIIH basal transcription factor, involved in nucleotide excision repair (NER) of DNA and, when complexed to CAK, in RNA transcription by RNA polymerase II. Acts by opening DNA either around the RNA transcription start site or the DNA damage.,similarity:Belongs to the helicase family. RAD25/XPB subfamily.,similarity:Contains 1 helicase ATP-binding domain.,similarity:Contains 1 helicase C-terminal domain.,subunit:One of the six subunits forming the core-TFIIH basal transcription factor. Interacts with PUF60. Interacts with Epstein-Barr virus EBNA2., |
| Usage                       | For Research Use Only! Not for diagnostic or therapeutic procedures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |