

## Immunotag™ TBK1 Antibody

| Antibody Specification |                                                                                                                                                                                                                                                                                                                          |
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| Catalog No.            | ITA7103                                                                                                                                                                                                                                                                                                                  |
| Product Description    | Immunotag™ TBK1 Antibody                                                                                                                                                                                                                                                                                                 |
| Size                   | 100 µg, 200 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         | TBK1                                                                                                                                                                                                                                                                                                                     |
| Clonality              | Polyclonal                                                                                                                                                                                                                                                                                                               |
| Storage/Stability      | -20°C/1 year                                                                                                                                                                                                                                                                                                             |
| Application            | WB,IHC,IF/ICC,ELISA                                                                                                                                                                                                                                                                                                      |
| Recommended Dilution   | WB 1:500-1:2000, IHC 1:50-1:200, IF/ICC 1:100-1:500                                                                                                                                                                                                                                                                      |
| Concentration          | 1 mg/ml                                                                                                                                                                                                                                                                                                                  |
| Reactive Species       | Human,Mouse,Rat                                                                                                                                                                                                                                                                                                          |
| Host Species           | Rabbit                                                                                                                                                                                                                                                                                                                   |
| Immunogen              | A synthesized peptide derived from human TBK1                                                                                                                                                                                                                                                                            |
| Specificity            | TBK1 Antibody detects endogenous levels of total TBK1                                                                                                                                                                                                                                                                    |
| Purification           | The antiserum was purified by peptide affinity chromatography.                                                                                                                                                                                                                                                           |
| Form                   | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt                                                                                                                                                              |
| Gene Name              | TBK1                                                                                                                                                                                                                                                                                                                     |
| Accession No.          | Q9UHD2                                                                                                                                                                                                                                                                                                                   |
| Alternate Names        | EC 2.7.11.1; FLJ11330; FTDALS4; NAK; NF kappa B activating kinase; NF kB activating kinase; NF-kappa-B-activating kinase; Serine/threonine protein kinase TBK 1; Serine/threonine protein kinase TBK1; Serine/threonine-protein kinase TBK1; T2K; TANK binding kinase 1; TANK-binding kinase 1; TBK 1; Tbk1; TBK1_HUMAN; |

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| Description               | <p>Serine/threonine kinase that plays an essential role in regulating inflammatory responses to foreign agents. Following activation of toll-like receptors by viral or bacterial components, associates with TRAF3 and TANK and phosphorylates interferon regulatory factors (IRFs) IRF3 and IRF7 as well as DDX3X. This activity allows subsequent homodimerization and nuclear translocation of the IRFs leading to transcriptional activation of pro-inflammatory and antiviral genes including IFNA and IFNB. In order to establish such an antiviral state, TBK1 form several different complexes whose composition depends on the type of cell and cellular stimuli. Thus, several scaffolding molecules including FADD, TRADD, MAVS, AZI2, TANK or TBKBP1/SINTBAD can be recruited to the TBK1-containing-complexes. Under particular conditions, functions as a NF-kappa-B effector by phosphorylating NF-kappa-B inhibitor alpha/NFKBIA, IKBKB or RELA to translocate NF-Kappa-B to the nucleus. Restricts bacterial proliferation by phosphorylating the autophagy receptor OPTN/Optineurin on 'Ser-177', thus enhancing LC3 binding affinity and antibacterial autophagy (PubMed:21617041). Phosphorylates SMCR8 component of the C9orf72-SMCR8 complex, promoting autophagosome maturation (PubMed:27103069). Phosphorylates and activates AKT1 (PubMed:21464307). Seems to play a role in energy balance regulation by sustaining a state of chronic, low-grade inflammation in obesity, wich leads to a negative impact on insulin sensitivity. Attenuates retroviral budding by phosphorylating the endosomal sorting complex required for transport-I (ESCRT-I) subunit VPS37C (PubMed:21270402). Phosphorylates Borna disease virus (BDV) P protein (PubMed:16155125).</p> |
| Cell Pathway/<br>Category | Primary Polyclonal Antibody                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Protein MW                | 84kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Usage                     | For Research Use Only! Not for diagnostic or therapeutic procedures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |