Immunotag™ XRCC4 Monoclonal Antibody(5C10)

Antibody Specification

Catalog No.	ITM3086
Product Description	Immunotag™ XRCC4 Monoclonal Antibody(5C10)
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	XRCC4 (5C10)
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC-p,IF,IP
Recommended Dilution	WB: 1:2000 IP:1:200 IF 1:200 IHC 1:50-300
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Mouse
Immunogen	Synthetic Peptide of XRCC4
Specificity	The antibody detects endogenous XRCC4 proteins.
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen
Form	PBS, pH 7.4, containing 0.02% sodium azide as Preservative and 50% Glycerol.
Gene Name	XRCC4
Accession No.	Q13426 Q924T3
Alternate Names	XRCC4; DNA repair protein XRCC4; X-ray repair cross-complementing protein 4

Antibody Specification

Description	X-ray repair cross complementing 4(XRCC4) Homo sapiens The protein encoded by this gene functions together with DNA ligase IV and the DNA-dependent protein kinase in the repair of DNA double-strand breaks. This protein plays a role in both non-homologous end joining and the completion of V(D)J recombination. Mutations in this gene can cause short stature, microcephaly, and endocrine dysfunction (SSMED). Alternative splicing generates several transcript variants. [provided by RefSeq, Dec 2015],
Cell Pathway/ Category	Non-homologous end-joining,
Protein Expression	Bone marrow,Eye,
Subcellular Localization	condensed chromosome,nucleus,nucleoplasm,centrosome,cytosol,DNA-dependent protein kinase-DNA ligase 4 complex,cell junction,DNA ligase IV complex,nonhomologous end joining complex,
Protein Function	function:Involved in DNA non-homologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. Binds to DNA and to DNA ligase IV (LIG4). The LIG4-XRCC4 complex is responsible for the NHEJ ligation step, and XRCC4 enhances the joining activity of LIG4. Binding of the LIG4-XRCC4 complex to DNA ends is dependent on the assembly of the DNA-dependent protein kinase complex DNA-PK to these DNA ends.,PTM:Monoubiquitinated.,PTM:Phosphorylated by PRKDC. The phosphorylation seems not to be necessary for binding to DNA. Phosphorylation by CK2 promotes interaction with APTX.,PTM:Sumoylation at Lys-210 is required for nuclear localization and recombination efficiency. Has no effect on ubiquitination.,similarity:Belongs to the XRCC4 family.,subunit:Homodimer and homotetramer in solution. The homodimer associates with LIG4, and the LIG4-XRCC4 complex associates in a DNA-dependent manner with the DNA-PK complex formed by the Ku p70/p86 dimer (G22P1/G22P2) and PRKDC. Seems to interact directly with PRKDC but not with the Ku p70/86 dimer. Interacts with XLF/Cernunnos. Interacts with APTX and APLF.,tissue specificity:Widely expressed.,
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