

NFKBIL2 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP17737a**Specification****NFKBIL2 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [Q96HA7](#)**NFKBIL2 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 4796**Other Names**

Tonsoku-like protein, Inhibitor of kappa B-related protein, I-kappa-B-related protein, IkappaBR, NF-kappa-B inhibitor-like protein 2, Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor-like 2, TONSL, IKBR, NFKBIL2

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

NFKBIL2 Antibody (N-term) Blocking Peptide - Protein Information**Name** TONSL {ECO:0000303|PubMed:21055983, ECO:0000312|HGNC:HGNC:7801}**Function**

Component of the MMS22L-TONSL complex, a complex that promotes homologous recombination-mediated repair of double-strand breaks (DSBs) at stalled or collapsed replication forks (PubMed: [21055983](http://www.uniprot.org/citations/21055983), PubMed: [21055984](http://www.uniprot.org/citations/21055984), PubMed: [21055985](http://www.uniprot.org/citations/21055985), PubMed: [21113133](http://www.uniprot.org/citations/21113133), PubMed: [26527279](http://www.uniprot.org/citations/26527279), PubMed: [27797818](http://www.uniprot.org/citations/27797818), PubMed: [29478807](http://www.uniprot.org/citations/29478807), PubMed: [27338793](http://www.uniprot.org/citations/27338793), PubMed: [30773278](http://www.uniprot.org/citations/30773278)). The MMS22L-TONSL complex is required to maintain genome integrity during DNA replication (PubMed: [21055983](http://www.uniprot.org/citations/21055983), PubMed: [21055984](http://www.uniprot.org/citations/21055984), PubMed: [21055985](http://www.uniprot.org/citations/21055985)). It mediates the assembly of RAD51 filaments on

single-stranded DNA (ssDNA): the MMS22L-TONSL complex is recruited to DSBs following histone replacement by histone chaperones and eviction of the replication protein A complex (RPA/RP-A) from DSBs (PubMed:21055983, PubMed:21055984, PubMed:21055985, PubMed:27797818, PubMed:29478807). Following recruitment to DSBs, the TONSL-MMS22L complex promotes recruitment of RAD51 filaments and subsequent homologous recombination (PubMed:27797818, PubMed:29478807). Within the complex, TONSL acts as a histone reader, which recognizes and binds newly synthesized histones following their replacement by histone chaperones (PubMed:29478807, PubMed:27338793). Specifically binds histone H4 lacking methylation at 'Lys-20' (H4K20me0) and histone H3.1 (PubMed:27338793).

Cellular Location

Nucleus. Chromosome. Cytoplasm Note=Mainly nuclear (PubMed:21055983, PubMed:21055984). Localizes to DNA damage sites, accumulates at stressed replication forks (PubMed:21055983, PubMed:21055984, PubMed:26527279, PubMed:27338793) Recruited to stalled or collapsed replication forks following histone replacement by histone chaperones ASF1A and the CAF-1 complex: TONSL acts as a histone reader that recognizes and binds newly synthesized histones (PubMed:29478807).

Tissue Location

Expressed in heart, skeletal muscle and tracheal epithelial cells.

NFKBIL2 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

NFKBIL2 Antibody (N-term) Blocking Peptide - Images

NFKBIL2 Antibody (N-term) Blocking Peptide - Background

The protein encoded by this gene is thought to be a negative regulator of NF-kappa-B mediated transcription. The encoded protein may bind NF-kappa-B complexes and trap them in the cytoplasm, preventing them from entering the nucleus and interacting with the DNA. Phosphorylation of this protein targets it for degradation by the ubiquitination pathway, which frees the NF-kappa-B complexes to enter the nucleus.

NFKBIL2 Antibody (N-term) Blocking Peptide - References

Wang, Y., et al. J. Hum. Genet. 55(8):490-494(2010) Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :Norman, D.A., et al. Ann. Hum. Genet. 64 (PT 1), 15-23 (2000) :Ray, P., et al. J. Biol. Chem. 270(18):10680-10685(1995)