

QKI Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP2707a**Specification**

QKI Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q96PU8](#)**QKI Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 9444**Other Names**

Protein quaking, Hqk, Hqkl, QKI, HKQ

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2707a](/product/products/AP2707a) was selected from the N-term region of human QKI. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

QKI Antibody (N-term) Blocking Peptide - Protein Information**Name** QKI {ECO:0000303|PubMed:16342280, ECO:0000312|HGNC:HGNC:21100}**Function**

RNA reader protein, which recognizes and binds specific RNAs, thereby regulating RNA metabolic processes, such as pre-mRNA splicing, circular RNA (circRNA) formation, mRNA export, mRNA stability and/or translation (PubMed: [22398723](http://www.uniprot.org/citations/22398723), PubMed: [25768908](http://www.uniprot.org/citations/25768908), PubMed: [27029405](http://www.uniprot.org/citations/27029405), PubMed: [31331967](http://www.uniprot.org/citations/31331967), PubMed: [23630077](http://www.uniprot.org/citations/23630077), PubMed: [37379838](http://www.uniprot.org/citations/37379838)). Involved in various cellular processes, such as mRNA storage into stress granules, apoptosis, lipid deposition, interferon response, glial cell fate and development (PubMed: [25768908](http://www.uniprot.org/citations/25768908), PubMed: [31829086](http://www.uniprot.org/citations/31829086)).

target="_blank">31829086, PubMed:34428287, PubMed:37379838). Binds to the 5'-NACUAAAY-N(1,20)-UAAAY-3' RNA core sequence (PubMed:23630077). Acts as a mRNA modification reader that specifically recognizes and binds mRNA transcripts modified by internal N(7)-methylguanine (m7G) (PubMed:37379838). Promotes the formation of circular RNAs (circRNAs) during the epithelial to mesenchymal transition and in cardiomyocytes: acts by binding to sites flanking circRNA-forming exons (PubMed:25768908). CircRNAs are produced by back-splicing circularization of pre-mRNAs (PubMed:25768908). Plays a central role in myelination via 3 distinct mechanisms (PubMed:16641098). First, acts by protecting and promoting stability of target mRNAs such as MBP, SIRT2 and CDKN1B, which promotes oligodendrocyte differentiation (By similarity). Second, participates in mRNA transport by regulating the nuclear export of MBP mRNA (By similarity). Finally, indirectly regulates mRNA splicing of MAG pre-mRNA during oligodendrocyte differentiation by acting as a negative regulator of MAG exon 12 alternative splicing: acts by binding to HNRNPA1 mRNA splicing factor, preventing its translation (By similarity). Involved in microglia differentiation and remyelination by regulating microexon alternative splicing of the Rho GTPase pathway (By similarity). Involved in macrophage differentiation: promotes monocyte differentiation by regulating pre-mRNA splicing in naive peripheral blood monocytes (PubMed:27029405). Acts as an important regulator of muscle development: required for the contractile function of cardiomyocytes by regulating alternative splicing of cardiomyocyte transcripts (By similarity). Acts as a negative regulator of thermogenesis by decreasing stability, nuclear export and translation of mRNAs encoding PPARGC1A and UCP1 (By similarity). Also required for visceral endoderm function and blood vessel development (By similarity). May also play a role in smooth muscle development (PubMed:31331967). In addition to its RNA-binding activity, also acts as a nuclear transcription coactivator for SREBF2/SREBP2 (By similarity).

Cellular Location

Nucleus. Cytoplasm [Isoform QKI6]: Cytoplasm, cytosol. Nucleus Note=Localizes predominantly in the cytoplasm and at lower levels in nucleus.

Tissue Location

Expressed in the frontal cortex of brain. Down-regulated in the brain of schizophrenic patients

QKI Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

QKI Antibody (N-term) Blocking Peptide - Images

QKI Antibody (N-term) Blocking Peptide - Background

QKI belongs to a family of RNA-binding proteins that have an HNRNPK homology (KH) domain embedded in a 200-amino acid region called the GSG domain. Other members of this family include SAM68 (KHDRBS1) and SF1.

QKI Antibody (N-term) Blocking Peptide - References

Zhao,L., J. Neurosci. 26 (44), 11278-11286 (2006)Haroutunian,V., Am J Psychiatry 163 (10),

1834-1837 (2006)Aberg,K., Proc. Natl. Acad. Sci. U.S.A. 103 (19), 7482-7487 (2006)