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**[ Primary Antibody ]**

# Rabbit Anti-QK1 antibody

**Catalog Number: SL11579R**

**FOR RESEARCH USE ONLY**

**[ DATASHEET ]**

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| **Host:** | Rabbit |
| **Isotype:** | IgG |
| **Clonality:** | Polyclonal |
| **Target:** | QK1 |
| **Immunogen:** | KLH conjugated synthetic peptide derived from human QK1: 220/341/341 |
| **Purification:** | affinity purified by Protein A |
| **Concentration:** | 1mg/ml |
| **Storage:** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. |
| **Applications:** | WB=1:500-2000 （Paraffin sections need antigen repair）<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user. |
| **Reactivity:** | Human<br>(predicted:Mouse,Rat,Chicken,Horse,Sheep) |
| **Predicted MW.:** | 38kDa |
| **Subcellular Location:** | The nucleus cytoplasmic |
| **Background:** | QKI is a 341 amino acid protein that localizes to both the cytoplasm and the nucleus and contains one KH domain. Expressed in the frontal cortex of the brain, QKI functions as an RNA-binding protein that plays an important role in myelinization and specifically binds to the RNA core sequence 5'-NACUAAY-N(1,20)-UAAY-3'. Additionally, QKI regulates pre-mRNA splicing, and mRNA export and is involved in protecting and promoting the stability of select mRNAs. QKI may be methylated by PRMT1 and may also be phosphorylated at its C-terminus, an event that decreases QKI mRNA-binding affinity. Defects or deletions in the gene encoding QKI are associated with astrocytic tumors and may be involved in the pathogenesis of schizophrenia. Multiple isoforms of QKI exist due to alternative splicing events.<br>**Function:** RNA-binding protein that plays a central role in myelinization. Binds to the 5'-NACUAAY-N(1,20)-UAAY-3' RNA core sequence. Acts by |

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| | regulating pre-mRNA splicing, mRNA export, mRNA stability and protein translation. Required to protect and promote stability of mRNAs such as MBP and CDKN1B. Regulator of oligodendrocyte differentiation and maturation in the brain that may play a role in myelin and oligodendrocyte dysfunction in schizophrenia. Participates in mRNA transport by regulating the nuclear export of MBP mRNA. Also involved in regulation of mRNA splicing of MAG pre-mRNA. Acts as a translational repressor.<br>**Subunit:** Homodimer. Does not require RNA to homodimerize. Able to heterodimerize with BICC1<br>**Subcellular Location:** Nucleus. Cytoplasm.<br>**Tissue Specificity:** Expressed in the frontal cortex of brain. Down-regulated in the brain of schizophrenic patients.<br>**Post-translational modifications:** Methylated by PRMT1.<br>Tyrosine phosphorylated at its C-terminus, probably by FYN. Phosphorylation leads to decreased mRNA-binding affinity, affecting transport and/or stabilization of MBP mRNA.<br>**Similarity:** Contains 1 KH domain.<br>**Database links:**<br>**Entrez Gene:** 9444 Human<br>**Entrez Gene:** 19317 Mouse<br>**Entrez Gene:** 499022 Rat<br>Omim: 609590 Human<br>**SwissProt:** Q96PU8 Human<br>**SwissProt:** Q9QYS9 Mouse<br>**SwissProt:** Q91XU1 Rat<br>**Unigene:** 510324 Human<br>**Unigene:** 130694 Mouse<br>**Unigene:** 384135 Mouse<br>**Unigene:** 393248 Mouse<br>**Unigene:** 228876 Rat |

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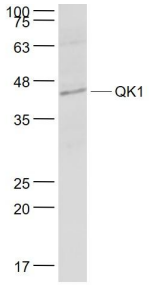
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## [ VALIDATION IMAGES ]




Sample:
U2OS(Human) Cell Lysate at 30 ug
Primary: Anti- QK1 (SL11579R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 38 kD
Observed band size: 40 kD

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