

Mouse Dyrk1a Antibody(C-term) Blocking peptide
Synthetic peptide
Catalog # BP19429b**Specification**

Mouse Dyrk1a Antibody(C-term) Blocking peptide - Product InformationPrimary Accession [Q61214](#)**Mouse Dyrk1a Antibody(C-term) Blocking peptide - Additional Information****Gene ID** 13548**Other Names**

Dual specificity tyrosine-phosphorylation-regulated kinase 1A, Dual specificity YAK1-related kinase, MP86, Protein kinase minibrain homolog, MNBH, Dyrk1a, Dyrk

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.

Mouse Dyrk1a Antibody(C-term) Blocking peptide - Protein Information**Name** Dyrk1a**Synonyms** Dyrk**Function**

Dual-specificity kinase which possesses both serine/threonine and tyrosine kinase activities (PubMed:18938227, PubMed:20123978). Exhibits a substrate preference for proline at position P+1 and arginine at position P-3 (By similarity). Plays an important role in double-strand breaks (DSBs) repair following DNA damage (By similarity). Mechanistically, phosphorylates RNF169 and increases its ability to block accumulation of TP53BP1 at the DSB sites thereby promoting homologous recombination repair (HRR) (By similarity). Also acts as a positive regulator of transcription by acting as a CTD kinase that mediates phosphorylation of the CTD (C-terminal domain) of the large subunit of RNA polymerase II (RNAP II) POLR2A (By similarity). May play a role in a signaling pathway regulating nuclear functions of cell proliferation (By similarity). Modulates alternative splicing by phosphorylating the splice factor SRSF6 (By similarity). Has pro- survival function and negatively regulates the apoptotic process (PubMed:20167603). Promotes cell survival upon genotoxic stress through phosphorylation of SIRT1 (PubMed:20167603).

target="_blank">20167603). This in turn inhibits p53/TP53 activity and apoptosis (PubMed:20167603). Phosphorylates SEPTIN4, SEPTIN5 and SF3B1 at 'Thr-434' (PubMed:18938227).

Cellular Location

Nucleus speckle.

Tissue Location

Detected in brain (at protein level) (PubMed:22998443). Expressed in a variety of embryonic and adult tissues (PubMed:8975710). Expressed abundantly in neurons of the brain, spinal cord, and retina in developing embryos (PubMed:8975710) Expressed in the entorhinal, temporal and visual cortices and the hippocampus of the brain where is colocalizes with SEPTIN4 (PubMed:18938227). Expressed and extensively colocalizes with SEPTIN4 in apical dendrites of pyramidal cells (PubMed:18938227). Also expressed in Purkinje cells in the cerebellum in postnatal day 1 and adult mice (PubMed:18938227).

Mouse Dyrk1a Antibody(C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

Mouse Dyrk1a Antibody(C-term) Blocking peptide - Images**Mouse Dyrk1a Antibody(C-term) Blocking peptide - Background**

Dyrk1a may play a role in a signaling pathway regulating nuclear functions of cell proliferation. Phosphorylates serine, threonine and tyrosine residues in its sequence and in exogenous substrates.

Mouse Dyrk1a Antibody(C-term) Blocking peptide - References

Park, J., et al. J. Biol. Chem. 285(41):31895-31906(2010)Guo, X., et al. J. Biol. Chem. 285(17):13223-13232(2010)Kurabayashi, N., et al. Mol. Cell. Biol. 30(7):1757-1768(2010)Lee, Y., et al. J. Biol. Chem. 284(48):33343-33351(2009)Noll, C., et al. PLoS ONE 4 (10), E7540 (2009) :