

DYRK1A Antibody (N-Term)
Peptide-affinity purified goat antibody
Catalog # AF3754a**Specification**

DYRK1A Antibody (N-Term) - Product Information

Application	WB
Primary Accession	Q13627
Other Accession	NP_001387.2 , NP_569120.1 , NP_567824.1 , NP_569122.1 , 1859 , 13548 (mouse) , 25255 (rat)
Reactivity	Human
Predicted	Mouse, Rat, Pig, Dog, Cow
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	85584

DYRK1A Antibody (N-Term) - Additional Information**Gene ID** 1859**Other Names**

Dual specificity tyrosine-phosphorylation-regulated kinase 1A, 2.7.12.1, Dual specificity YAK1-related kinase, HP86, Protein kinase minibrain homolog, MNBH, hMNB, DYRK1A, DYRK, MNB, MNBH

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

DYRK1A Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

DYRK1A Antibody (N-Term) - Protein Information**Name** DYRK1A {ECO:0000303|PubMed:25620562, ECO:0000312|HGNC:HGNC:3091}**Function**

Dual-specificity kinase which possesses both serine/threonine and tyrosine kinase activities (PubMed:21127067, PubMed:8769099,

PubMed:30773093, PubMed:20981014, PubMed:23665168). Exhibits a substrate preference for proline at position P+1 and arginine at position P-3 (PubMed:23665168). Plays an important role in double- strand breaks (DSBs) repair following DNA damage (PubMed:31024071). Mechanistically, phosphorylates RNF169 and increases its ability to block accumulation of TP53BP1 at the DSB sites thereby promoting homologous recombination repair (HRR) (PubMed:30773093). 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 (PubMed:25620562, PubMed:29849146). May play a role in a signaling pathway regulating nuclear functions of cell proliferation (PubMed:14500717). Modulates alternative splicing by phosphorylating the splice factor SRSF6 (By similarity). Has pro-survival function and negatively regulates the apoptotic process (By similarity). Promotes cell survival upon genotoxic stress through phosphorylation of SIRT1 (By similarity). This in turn inhibits p53/TP53 activity and apoptosis (By similarity). Phosphorylates SEPTIN4, SEPTIN5 and SF3B1 at 'Thr-434' (By similarity).

Cellular Location

Nucleus. Nucleus speckle {ECO:0000250|UniProtKB:Q61214}

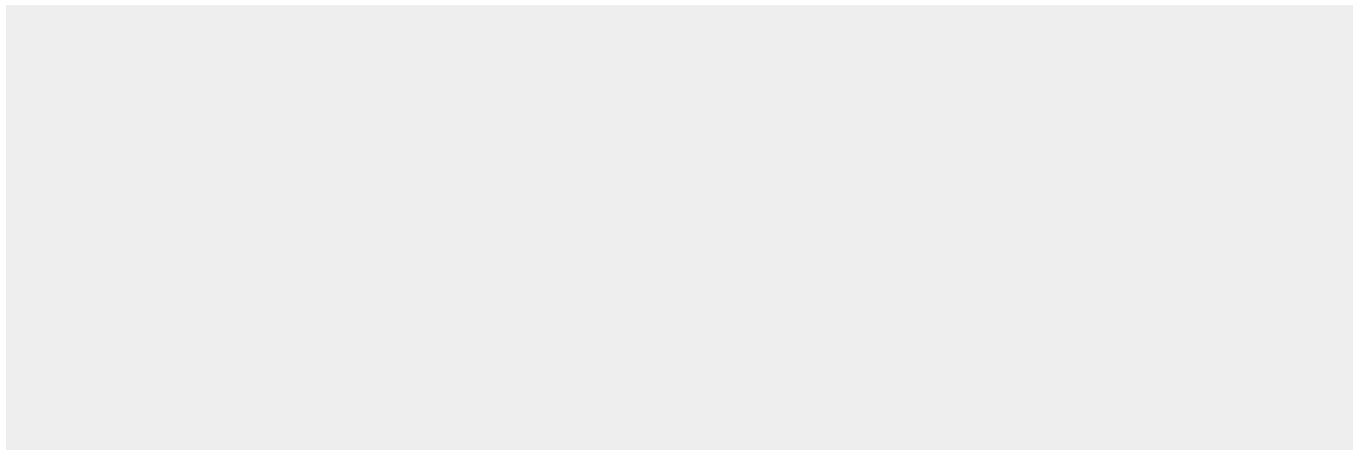
Tissue Location

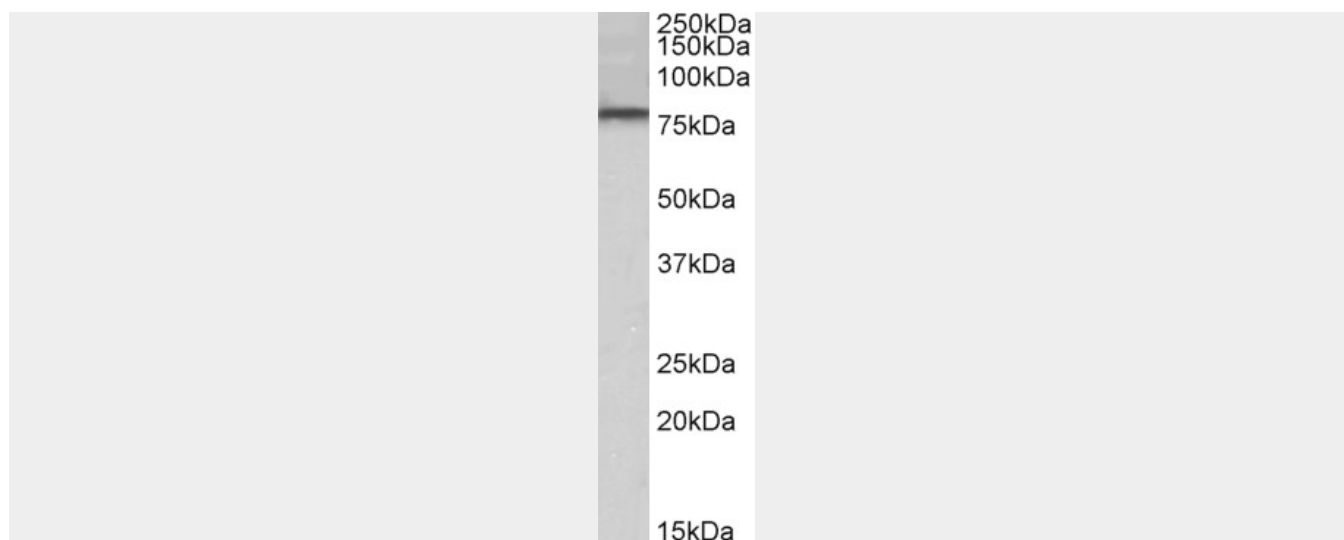
Ubiquitous. Highest levels in skeletal muscle, testis, fetal lung and fetal kidney.

DYRK1A Antibody (N-Term) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

DYRK1A Antibody (N-Term) - Images



AF3754a (0.5 µg/ml) staining of K562 lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

DYRK1A Antibody (N-Term) - Background

This antibody is expected to recognize all reported isoforms (NP_001387.2; NP_569120.1; NP_567824.1; NP_569122.1). This antibody is not expected to cross-react with DYRK1B.

DYRK1A Antibody (N-Term) - References

DYRK1A binds to an evolutionarily conserved WD40-repeat protein WDR68 and induces its nuclear translocation. Miyata Y, Nishida E. Biochim Biophys Acta. 2011 Oct;1813(10):1728-39. PMID: 21777625