

ROS Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP7676a**Specification**

ROS Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P08922](#)**ROS Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 6098**Other Names**

Proto-oncogene tyrosine-protein kinase ROS, Proto-oncogene c-Ros, Proto-oncogene c-Ros-1, Receptor tyrosine kinase c-ros oncogene 1, c-Ros receptor tyrosine kinase, ROS1, MCF3, ROS

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7676a](/product/products/AP7676a) was selected from the N-term region of human ROS. 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.

ROS Antibody (N-term) Blocking Peptide - Protein Information**Name** ROS1**Synonyms** MCF3, ROS**Function**

Receptor tyrosine kinase (RTK) that plays a role in epithelial cell differentiation and regionalization of the proximal epididymal epithelium. NELL2 is an endogenous ligand for ROS1. Upon endogenous stimulation by NELL2, ROS1 activates the intracellular signaling pathway and triggers epididymal epithelial differentiation and subsequent sperm maturation (By similarity). May activate several downstream signaling pathways related to cell differentiation, proliferation, growth and survival including the PI3 kinase-mTOR signaling pathway. Mediates the phosphorylation of PTPN11, an activator of this pathway. May also phosphorylate and activate the transcription factor STAT3 to control anchorage-independent cell growth. Mediates the phosphorylation and the activation of VAV3, a guanine nucleotide exchange factor regulating cell

morphology. May activate other downstream signaling proteins including AKT1, MAPK1, MAPK3, IRS1 and PLCG2.

Cellular Location

Cell membrane; Single-pass type I membrane protein

Tissue Location

Expressed in brain. Expression is increased in primary gliomas.

ROS Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

ROS Antibody (N-term) Blocking Peptide - Images**ROS Antibody (N-term) Blocking Peptide - Background**

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the γ phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The tyrosine kinase (TK) group is mainly involved in the regulation of cell-cell interactions such as differentiation, adhesion, motility and death. There are currently about 90 TK genes sequenced, 58 are of receptor protein TK (e.g. EGFR, EPH, FGFR, PDGFR, TRK, and VEGFR families), and 32 of cytosolic TK (e.g. ABL, FAK, JAK, and SRC families).

ROS Antibody (N-term) Blocking Peptide - References

Birchmeier, C., et al., Proc. Natl. Acad. Sci. U.S.A. 87(12):4799-4803 (1990). Matsushime, H., et al., Mol. Cell. Biol. 6(8):3000-3004 (1986). Birchmeier, C., et al., Mol. Cell. Biol. 6(9):3109-3116 (1986).