

## Mouse Anti-ROS1 antibody

SLM-51686M

<b>Product Name</b>	ROS1
<b>Chinese Name</b>	原癌基因 ROS1 单克隆抗体
<b>Alias</b>	ROS; ros protein; c ros; c-ros; c ros1; MCF3; Oncogene ROS; OTTHUMP00000040389; Proto oncogene c ros 1 protein; Proto oncogene tyrosine protein kinase ROS; Proto oncogene tyrosine protein kinase ROS precursor; Ros1; ROS1C; Transmembrane tyrosine specific protein kinase; v ros avian UR2 sarcoma virus oncogene homolog 1; v ros UR2 sarcoma virus oncogene homolog 1; ROS1_HUMAN; 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
<b>Research Area</b>	Cell biology Signal transduction Apoptosis Kinases and Phosphatases
<b>Immunogen Species</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone NO.</b>	F7Y3
<b>React Species</b>	Human WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:200-300,IF=1:100-500 (Paraffin sections need antigen repair)
<b>Applications</b>	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Theoretical molecular weight</b>	258kDa
<b>Cellular localization</b>	The cell membrane
<b>Form</b>	Liquid
<b>Concentration immunogen</b>	1mg/ml Recombinant human ROS1.
<b>Lsotype</b>	IgG1,k
<b>Purification</b>	affinity purified by Protein G
<b>Buffer Solution</b>	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
<b>Storage</b>	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw

cycles.

**Attention**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**PubMed**

[PubMed](#)

This proto-oncogene, highly-expressed in a variety of tumor cell lines, belongs to the sevenless subfamily of tyrosine kinase insulin receptor genes. The protein encoded by this gene is a type I integral membrane protein with tyrosine kinase activity. The protein may function as a growth or differentiation factor receptor. [provided by RefSeq, Jul 2008]

**Function:**

Orphan receptor tyrosine kinase (RTK) that plays a role in epithelial cell differentiation and regionalization of the proximal epididymal epithelium. 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.

**Product Detail**

**Subunit:**

Interacts with PTPN6 (via SH2 1 domain); the interaction is direct and promotes ROS1 dephosphorylation By similarity. Interacts with PTPN11; may activate the PI3 kinase-mTOR signaling pathway. Interacts with VAV3; constitutive interaction mediating VAV3 phosphorylation.

**Subcellular Location:**

Cell membrane; Single-pass type I membrane protein.

**Tissue Specificity:**

Expressed in brain. Expression is increased in primary gliomas.

**Post-translational modifications:**

Phosphorylated. Probably autophosphorylates. Phosphorylation at Tyr-2274 is required for the interaction with PTPN6 that mediates ROS1 dephosphorylation. Phosphorylation at Tyr-2274 stimulates the kinase activity and the activation of the ERK1 signaling cascade. Phosphorylation at Tyr-2274 and/or Tyr-2334 recruits PTPN11.

**DISEASE:**

A chromosomal aberration involving ROS1 is found in a glioblastoma multiforme sample. An intra-chromosomal deletion del6(q21q21) is responsible for the formation of GOPC-ROS1 chimeric protein which is localized to the Golgi and has a constitutive receptor tyrosine kinase activity. A SLC34A2-ROS1 chimeric protein produced in non-small cell lung cancer cells also retains a constitutive kinase activity. A third type of chimeric protein CD74-ROS1 was also identified in those cells.

**Similarity:**

Belongs to the protein kinase superfamily. Tyr protein kinase family. Insulin receptor subfamily.

Contains 9 fibronectin type-III domains.

Contains 1 protein kinase domain.

**SWISS:**

P08922

**Gene ID:**

6098

**Database links:**

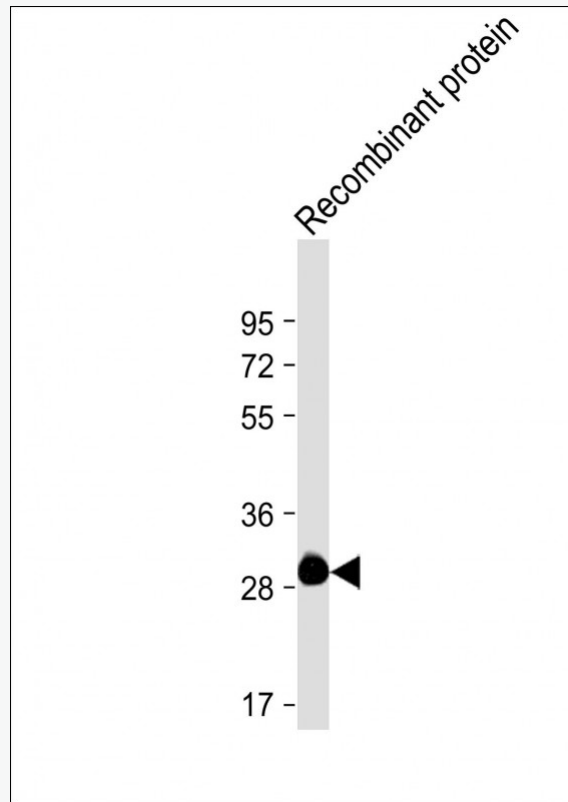
[Entrez Gene: 6098](#) Human

[Omir: 165020](#) Human

[SwissProt: P08922](#) Human

[Unigene: 1041](#) Human

**Product Picture**



Sample:

Lane 1: Recombinant ROS1 protein

Primary: Anti-ROS1 (SLM-51686M) at 1/4000 dilution

Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution

Predicted band size: 258 kD

Observed band size: 30 kD