

Rabbit ROS Polyclonal Antibody | anti-ROS antibody

Phospho-ROS (Tyr2114) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329919	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (88%), Bovine (100%), Horse (100%), Sheep (100%), Chicken (100%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

ROS; Polyclonal Antibody; Phospho-ROS (Tyr2114) Antibody; c ros 1; c ros; c ros oncogene 1 receptor tyrosine kinase; c Ros receptor tyrosine kinase; c ros1; MCF 3; MCF3; Oncogene ROS; OTTHUMP00000017814; OTTHUMP00000017815; OTTHUMP00000040389; Proto oncogene c ros 1 protein; Proto oncogene c Ros; Proto oncogene tyrosine protein kinase ROS; Proto oncogene tyrosine protein kinase ROS precursor; Proto-oncogene c-Ros-1; Proto-oncogene tyrosine-protein kinase ROS; Receptor tyrosine kinase c ros oncogene 1; Ros 1; ROS 1C; ROS proto oncogene 1; receptor tyrosine kinase; ROS_HUMAN; ROS1; ROS1C; Transmembrane tyrosine specific protein kinase; v ros avian UR2 sarcoma virus oncogene homolog 1; v ros UR2 sarcoma virus oncogene homolog 1; anti-ROS antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (88%), Bovine (100%), Horse (100%), Sheep (100%), Chicken (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-ROS (Tyr2114) Antibody detects endogenous levels of ROS only when phosphorylated at Tyr2114. Tissue Specificity: Expressed in brain. Expression is increased in primary gliomas.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-ROS antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ROS around the phosphorylation site of Tyr2114.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated. Probably autophosphorylates. Phosphorylation at Tyr-2274 is required for the interaction with PTPN6 that mediates ROS1 dephosphorylation (By similarity). Phosphorylation at Tyr-2274 stimulates the kinase activity and the activation of the ERK1 signaling cascade (By similarity). Phosphorylation at Tyr-2274 and/or Tyr-2334 recruits PTPN11.
Subunit Structure	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.
Similarity	Belongs to the protein kinase superfamily. Tyr protein kinase family. Insulin receptor subfamily.
Subcellular Location	Cell membrane>Single-pass type I membrane protein.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
Staining Mouse colorectal tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of ROS (Phospho-Tyr2114) using TNF treated HeLa whole cell lysates. -/+ means absence or presence of N peptide(1/4 non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-ROS antibody	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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	19924165
NCBI GeneID	6098
NCBI Accession #	NP_002935.2
NCBI GenBank Nucleotide #	NM_002944.2
UniProt Accession #	P08922; Q15368; Q5TDB5
Molecular Weight	263,915 Da
NCBI Official Full Name	proto-oncogene tyrosine-protein kinase ROS
NCBI Official Synonym Full Names	ROS proto-oncogene 1, receptor tyrosine kinase
NCBI Official Symbol	ROS1
NCBI Official Synonym Symbols	ROS; MCF3; c-ros-1
NCBI Protein Information	proto-oncogene tyrosine-protein kinase ROS
UniProt Protein Name	Proto-oncogene tyrosine-protein kinase ROS
UniProt Gene Name	ROS1
UniProt Synonym Gene Names	MCF3; ROS
UniProt Entry Name	ROS1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.