Rabbit COT Polyclonal Antibody | anti-COT antibody

Phospho-COT (Thr290) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321616	**Rabbit**	**Human, Mouse, Rat**	**ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot**

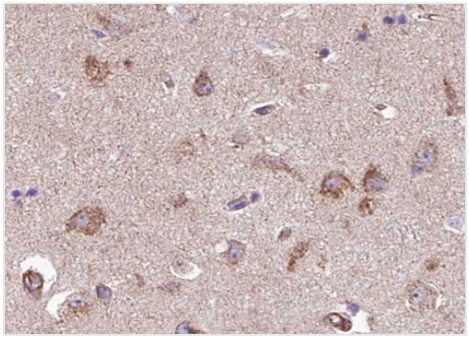
PRODUCT SYNONYMS

COT; Polyclonal Antibody; Phospho-COT (Thr290) Antibody; AURA2; c COT; Cancer Osaka thyroid oncogene; CCOT; COT proto oncogene serine/threonine protein kinase; EST; ESTF; Ewing sarcoma transformant; FLJ10486; M3K8_HUMAN; MAP3K 8; MAP3K8; MEKK8; Mitogen activated protein kinase kinase kinase 8; Mitogen-activated protein kinase kinase kinase 8; Proto oncogene cCot; Proto-oncogene c-Cot; Serine/threonine protein kinase cot; Serine/threonine-protein kinase cot; TPL 2; TPL-2; TPL2; Tumor progression locus 2; anti-COT antibody

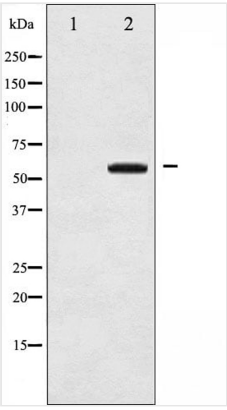
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-COT (Thr290) antibody detects endogenous levels of COT only when phosphorylated at Threonine 290
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	467
Applicable Applications for anti-COT antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human COT around the phosphorylation site of Threonine 290
Subcellular Location	Cytoplasm.
Tissue Specificity	Expressed in several normal tissues and human tumor-derived cell lines.
Predicted Cross Reactivity	**Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus**
Similarity	Pig (100%), Zebrafish (82%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Epitope	Phospho Thr290
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

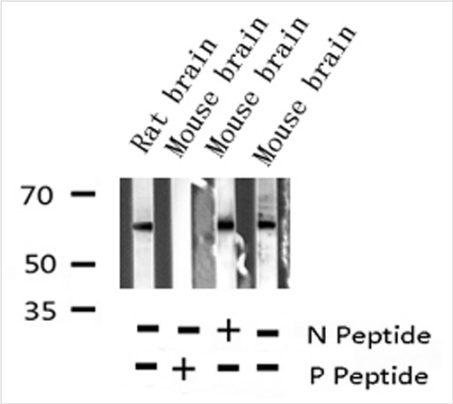
IMAGES



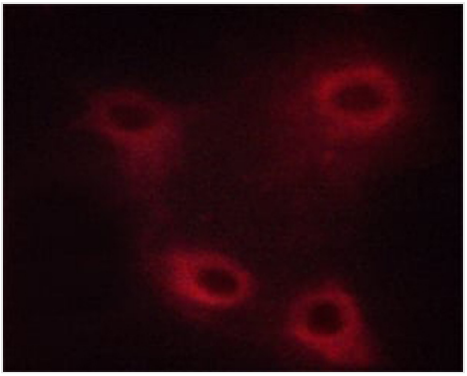
IHC (Immunohistochemistry)
AAA321616 at 1/100 staining human brain tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of COT phosphorylation expression in UV treated 293 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



WB (Western Blot)
Western blot analysis of Phospho-COT (Thr290) expression in various lysates



IF (Immunofluorescence)
AAA321616 staining HUVEC cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37 degree C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37 degree C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-COT antibody	Description: This gene was identified by its oncogenic transforming activity in cells. The encoded protein is a member of the serine/threonine protein kinase family. This kinase can activate both the MAP kinase and JNK kinase pathways. Function: Required for lipopolysaccharide (LPS)-induced, TLR4-mediated activation of the MAPK/ERK pathway in macrophages, thus being critical for production of the proinflammatory cytokine TNF-alpha (TNF) during immune responses. Involved in the regulation of T-helper cell differentiation and IFNG expression in T-cells. Involved in mediating host resistance to bacterial infection through negative regulation of type I interferon (IFN) production. In vitro, activates MAPK/ERK pathway in response to IL1 in an IRAK1-independent manner, leading to up-regulation of IL8 and CCL4. Transduces CD40 and TNFRSF1A signals that activate ERK in B-cells and macrophages, and thus may play a role in the regulation of immunoglobulin production. May also play a role in the transduction of TNF signals that activate JNK and NF-kappa-B in some cell types. In adipocytes, activates MAPK/ERK pathway in an IKBKB-dependent manner in response to IL1B and TNF, but not insulin, leading to induction of lipolysis. Plays a role in the cell cycle. Isoform 1 shows some transforming activity, although it is much weaker than that of the activated oncogenic variant. Subunit Structure: Forms a ternary complex with NFKB1/p105 and TNIP2. Interacts with NFKB1; the interaction increases the stability of MAP3K8 but inhibits its MEK phosphorylation activity, whereas loss of interaction following LPS stimulation leads to its degradation. Interacts with CD40 and TRAF6; the interaction is required for ERK activation. Interacts with KSR2; the interaction inhibits ERK and NF-kappa-B activation. Post-translational Modifications: Autophosphorylated. Isoform 1 undergoes phosphorylation mainly on Ser residues, and isoform 2 on both Ser and Thr residues. Thr-290 is autophosphorylated (PubMed:19754427) and/or transphosphorylated (PubMed:15466476); the phosphorylation is necessary but not sufficient for full kinase activity in vitro and for the dissociation of isoform 1 from NFKB1, leading to its degradation. Ser-400 is autophosphorylated (PubMed:19754427) and/or transphosphorylated by IKBKB (PubMed:22988300); the phosphorylation is required for LPS-stimulated activation of the MAPK/ERK pathway in macrophages. Similarity: Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	346644795
NCBI GeneID	1326
NCBI Accession #	NP_001231063.1
NCBI GenBank Nucleotide #	NM_001244134.1
UniProt Accession #	P41279; Q14275; Q5T855; Q9HC81; A8K2Q5; D3DRX1
Molecular Weight	Observed: 60 kDa Predicted: 53 kDa
NCBI Official Full Name	mitogen-activated protein kinase kinase kinase 8
NCBI Official Synonym Full Names	mitogen-activated protein kinase kinase kinase 8
NCBI Official Symbol	MAP3K8
NCBI Official Synonym Symbols	COT; EST; ESTF; TPL2; AURA2; MEKK8; Tpl-2; c-COT
NCBI Protein Information	mitogen-activated protein kinase kinase kinase 8
UniProt Protein Name	Mitogen-activated protein kinase kinase kinase 8
UniProt Gene Name	**MAP3K8**
UniProt Synonym Gene Names	COT; ESTF; TPL-2

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.

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