abcam

ab2240

Anti-ELMO2 antibody

Key facts

Isotype	IgG
Host species	Goat
Storage buffer	pH: 7.3 Preservative: 0.02% Sodium azide Constituents: 0.5% BSA, 0.05% Tris
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human ELMO2 aa 700 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link Q96JJ3
Purification technique	Affinity purification Immunogen
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Expected

Species	Rat, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Cow, Dog, Pig
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	3-6 µg/mL
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Expected

Species	Rat, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Cow, Dog, Pig
Dilution info	-
Notes	-

WB

Tested

Species	Human

Dilution info	1-3 µg/mL
Notes	1 hour primary incubation is recommended for this product.

Species	Rat
Dilution info	1-3 µg/mL
Notes	-

Species	Mouse
Dilution info	1-3 µg/mL
Notes	-

Predicted

Species	Cow, Dog, Pig
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Cow, Dog, Pig
Dilution info	-
Notes	-

Target data

See full target information ELMO2

Function	Involved in cytoskeletal rearrangements required for phagocytosis of apoptotic cells and cell motility. Acts in association with DOCK1 and CRK. Was initially proposed to be required in complex with DOCK1 to activate Rac Rho small GTPases. May enhance the guanine nucleotide exchange factor (GEF) activity of DOCK1.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	ELMO2 also known as Engulfment and Cell Motility Protein 2 mechanically functions as an important regulator of cell migration and phagocytosis. It weighs approximately 82 kDa. This protein interacts extensively with the cytoplasmic tail of transmembrane receptors aiding in intracellular signaling cascades. ELMO2 is expressed in various tissues with notable levels in the brain kidney and spleen indicating its wide biological roles.
Biological function summary	ELMO2 plays a significant role in the regulation of the actin cytoskeleton which is important in cell motility and shape. It forms part of the ELMO/EPS8/SOS1 complex where it facilitates actin remodeling and cell surface receptor signaling. The protein acts as a guanine nucleotide exchange factor (GEF) guiding the activation of small GTPases like Rac1 essential for cytoskeletal reorganization and cellular responses to external stimuli.
Pathways	ELMO2 engages importantly in the PI3K/AKT signaling pathway and the phagocytosis regulatory pathway. It collaborates with the proteins such as DOCK180 functioning together in the phagocytosis of apoptotic cells. This association ensures the efficient clearance of dying cells maintaining tissue homeostasis and immune system balance.

Associated diseases and disorders	ELMO2 connects directly to several cancer types and neurodegenerative diseases. Its dysregulation is often observed in certain cancers such as breast cancer where it influences metastasis via alterations in cell migration. ELMO2 is also linked to Alzheimer's disease interacting with proteins like amyloid precursor protein (APP) suggesting a role in the pathological changes seen in neuronal cell environments.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

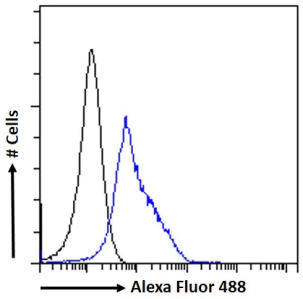
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

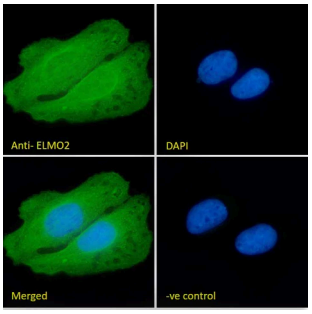
3 product images



Flow Cytometry - Anti-ELMO2 antibody (ab2240)

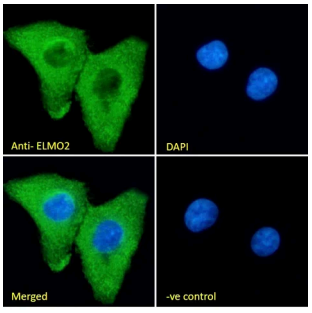
ELMO2 Flow Cytometry staining using goat Anti-ELMO2 antibody

Flow cytometric analysis of paraformaldehyde fixed U251 cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10µg/mL) followed by Alexa Fluor 488 secondary antibody (1µg/mL). IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-ELMO2 antibody (ab2240)

Immunofluorescence analysis of paraformaldehyde fixed U2OS cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing cytoplasmic and nuclear staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).



Immunocytochemistry/ Immunofluorescence - Anti-ELMO2 antibody (ab2240)

Immunocytochemistry/Immunofluorescence analysis of paraformaldehyde fixed A549 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10µg/mL) followed by Alexa Fluor 488 secondary antibody (2µg/mL), showing cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10µg/mL) followed by Alexa Fluor 488 secondary antibody (2µg/mL).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.