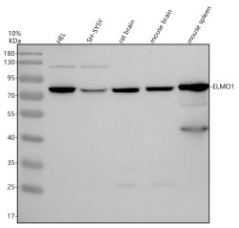
ELMO1 Antibody 18E79 / Engulfment and Cell Motility 1 Antibody [clone 18E79] (FY13709)

Catalog No.	Formulation	Size
FY13709	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	18E79
Purity	Affinity purified
UniProt	Q92556
Applications	Western blot: 1:500
Limitations	This ELMO1 Antibody 18E79 / Engulfment and Cell Motility 1 Antibody is available for research use only.



ELMO1 Antibody 18E79 WB Analysis of Human HEL and SH-SY5Y Cells, Rat Brain, Mouse Brain and Mouse Spleen. Western blot analysis of human HEL (lane 1) and SH-SY5Y (lane 2) whole-cell lysates, rat brain (lane 3), mouse brain (lane 4), and mouse spleen (lane 5) tissue lysates using Engulfment and Cell Motility 1 Antibody clone 18E79 at a 1:500 dilution. Each lane contained 30 ug of protein separated under reducing conditions on a 10% SDS-PAGE gel. A prominent immunoreactive band is detected at approximately 84 kDa in all five samples, consistent with the calculated molecular weight of ELMO1 (83.8 kDa).

Description

ELMO1 Antibody 18E79 / Engulfment and Cell Motility 1 Antibody recognizes ELMO1, a cytoplasmic signaling protein involved in actin cytoskeleton remodeling, cell migration, and the engulfment of apoptotic cells. ELMO1 belongs to a family of proteins characterized by conserved structural regions that facilitate interactions with signaling partners. The protein was identified through its functional relationship to CED-12, a component of the conserved cellular machinery responsible for regulating cell movement and the clearance of dying cells. ELMO1 participates in signaling pathways that

coordinate changes in cell shape, membrane dynamics, and cytoskeletal organization.

One of the best-characterized functions of ELMO1 involves its interaction with DOCK family proteins, particularly DOCK1, also known as DOCK180. Together, these proteins form a signaling complex that promotes activation of the small GTPase Rac1. DOCK1 provides guanine nucleotide exchange activity, while ELMO1 contributes to regulation and localization of the complex. Rac1 activation stimulates actin polymerization and the formation of membrane protrusions required for cellular migration, spreading, and phagocytic engulfment.

ELMO1 is also involved in the recognition and removal of apoptotic cells, a process essential for maintaining tissue homeostasis and limiting inflammatory responses. During apoptotic cell clearance, extracellular recognition signals are transmitted through membrane-associated receptors and intracellular signaling proteins. ELMO1 participates in pathways that connect these signals to Rac1-dependent cytoskeletal rearrangements, enabling phagocytic cells to extend their membranes around dying cells. Efficient clearance prevents the accumulation of cellular debris and contributes to the resolution of tissue injury.

Beyond phagocytosis, ELMO1 influences cell adhesion, migration, and directional movement in response to extracellular signals. Its interactions with DOCK proteins and other regulatory partners help coordinate cytoskeletal responses during development, immune cell activity, and tissue remodeling. Altered ELMO1 signaling has also been investigated in cancer cell migration and invasion, where changes in Rac1 activity can affect cellular behavior. The consequences of ELMO1 dysregulation depend on cellular context and the signaling pathways involved.

ELMO1 Antibody 18E79 provides a reagent for examining this signaling protein in studies of Rac1 activation, cytoskeletal dynamics, apoptotic cell engulfment, and cell migration. Understanding ELMO1 regulation remains important for investigating how intracellular signaling complexes coordinate cellular movement and maintain tissue homeostasis.

Explore our Cell Biology Antibodies for additional targets involved in Rac1 signaling, actin cytoskeleton remodeling, cell migration, and apoptotic cell engulfment.

Application Notes

Optimal dilution of the ELMO1 Antibody 18E79 / Engulfment and Cell Motility 1 Antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Engulfment and cell motility protein 1 was used as the immunogen for the ELMO1 Antibody 18E79.

Storage

The ELMO1 Antibody 18E79 can be stored at -20oC.

Alternate Names

Engulfment and cell motility protein 1 antibody, ELMO domain-containing protein 1 antibody, CED-12 homolog antibody, ELMO1 protein antibody, ELMO1 rabbit monoclonal antibody, ELMO1 clone 18E79 antibody

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