10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

STOML2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20280c

Product Information

Application	WB, E
Primary Accession	Q9UJZ1
Other Accession	Q4FZT0, Q99JB2, Q32LL2, NP_038470.1
Reactivity	Human
Predicted	Bovine, Mouse, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB42787
Calculated MW	38534
Antigen Region	161-189

Additional Information

Gene ID	30968
Other Names	Stomatin-like protein 2, mitochondrial, SLP-2, EPB72-like protein 2, Paraprotein target 7, Paratarg-7, STOML2, SLP2
Target/Specificity	This STOML2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 161-189 amino acids from the Central region of human STOML2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	STOML2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	STOML2 (HGNC:14559)
Synonyms	SLP2

Function	Mitochondrial protein that probably regulates the biogenesis and the activity of mitochondria. Stimulates cardiolipin biosynthesis, binds cardiolipin-enriched membranes where it recruits and stabilizes some proteins including prohibitin and may therefore act in the organization of functional microdomains in mitochondrial membranes. Through regulation of the mitochondrial function may play a role into several biological processes including cell migration, cell proliferation, T-cell activation, calcium homeostasis and cellular response to stress. May play a role in calcium homeostasis through negative regulation of calcium efflux from mitochondria. Required for mitochondrial hyperfusion a pro-survival cellular response to stress which results in increased ATP production by mitochondria. May also regulate the organization of functional domains at the plasma membrane and play a role in T-cell activation through association with the T- cell receptor signaling complex and its regulation.
Cellular Location	Cell membrane; Peripheral membrane protein. Mitochondrion. Mitochondrion inner membrane; Lipid-anchor. Mitochondrion intermembrane space. Membrane raft. Cytoplasm, cytoskeleton Note=Behaves as an integral membrane protein of the mitochondrion despite the absence of a detectable transmembrane domain (PubMed:21746876). Also associates with the actin cytoskeleton and membrane rafts in activated T-cells (PubMed:10713127, PubMed:18641330) A minor pool is associated with the plasma membrane and is enriched at the immunological synapse in activated T-cells (PubMed:22623988)
Tissue Location	Ubiquitously expressed at low levels. Expressed in lymphoid tissues (at protein level).

Background

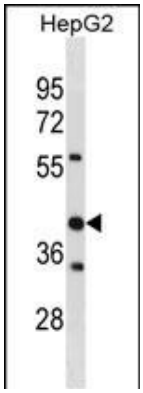
STOML2 is similar in sequence to stomatin. It is a 356 amino acid protein with a calculated molecular mass of 38.5 kDa. STOML2 has 3 potential initiator sites, all sharing the same open reading frame. The STOML2 protein contains the cognate stomatin family consensus sequence, but it lacks the characteristic N-terminal hydrophobic domain and palmitoylation consensus sequence. STOML2 shares greatest sequence homology with stomatin and SLP1 in a region predicted to contain beta sheet and alpha helix structures. Northern blot analysis detected a 1.5 kb STOML2 transcript in all tissues examined, with highest levels in heart, liver, and pancreas. Western blot analysis detected STOML2 at apparent molecular masses of 45.5 kDa or 44.6 kDa in all human and mammalian cell lines and tissues examined, including red blood cells. Some cells also showed a faint band at about 34.3 kDa, which may represent translation from an alternate initiation site.

References

Chang, D., et al. Biomarkers 15(2):104-110(2010)
Da Cruz, S., et al. Cell Calcium 47(1):11-18(2010)
Grass, S., et al. Lancet Oncol. 10(10):950-956(2009)
Kirchhof, M.G., et al. J. Immunol. 181(3):1927-1936(2008)
Green, J.B., et al. BMC Evol. Biol. 8, 44 (2008) :

Images

STOML2 Antibody (Center) (Cat. #AP20280c) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the STOML2 antibody detected the STOML2 protein (arrow).



Citations

- Stomatin-like protein 2 is overexpressed in cervical cancer and involved in tumor cell apoptosis.

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