

SLP-2 (D2I9X) XP® Rabbit mAb

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications: W, IHC-P	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 40	Source/Isotype: Rabbit IgG	UniProt ID: #Q9UJZ1	Entrez-Gene Id: 30968
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Product Usage Information**Application**

Western Blotting
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

SLP-2 (D2I9X) XP® Rabbit mAb recognizes endogenous levels of total SLP-2 protein. Bands of unknown identity are detected by western blot at 80 kDa.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val182 of human SLP-2 protein.

Background

Stomatin-like protein 2 (SLP-2 and also known as STOML2) is a lipid-anchored mitochondrial protein that is part of a large protein complex that regulates mitochondrial biogenesis and function. Proteomic studies identified SLP-2 as a widely expressed mitochondria-enriched protein (1). As a member of both the stomatin family and stomatin-prohibitin-flotillin-HfLC/K (SPFH) superfamily of proteins, SLP-2 forms large hetero-oligomeric complexes with other mitochondrial proteins, including prohibitin, mitofusin 2, and cardiolipin (2, 3). SLP-2 contains a highly conserved SPFH domain that mediates its ability to associate with the mitochondrial inner membrane and form specialized membrane microdomains. As an inner membrane organizer of other mitochondrial proteins, SLP-2 performs multiple mitochondrial functions, including regulation of mitochondrial biogenesis, energy/calcium homeostasis, translation, and mitochondrial-mediated cellular stress responses (3, 4, 5, 6, 7, 8). Enhanced SLP-2 expression is also associated with several human cancers, including gallbladder, rectal, and gastric cancer (9, 10, 11).

Background References

1. Da Cruz, S. et al. (2003) *J Biol Chem* 278, 41566-71.
2. Hájek, P. et al. (2007) *J Biol Chem* 282, 5670-81.
3. Christie, D.A. et al. (2011) *Mol Cell Biol* 31, 3845-56.
4. Da Cruz, S. et al. (2010) *Cell Calcium* 47, 11-8.
5. Wang, Y. et al. (2009) *Cancer Biol Ther* 8, 1651-8.
6. Christie, D.A. et al. (2012) *J Immunol* 189, 4349-60.
7. Tondera, D. et al. (2009) *EMBO J* 28, 1589-600.
8. Mitsopoulos, P. et al. (2017) *PLoS One* 12, e0179967.
9. Wang, W.X. et al. (2014) *Tumour Biol* 35, 419-23.
10. Liu, Z. et al. (2014) *Oncol Rep* 31, 153-60.
11. Bartolome, A. et al. (2016) *APMIS* 124, 271-7.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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