

# MPZL2 (D-15): sc-168631

## BACKGROUND

Thymus development depends on a complex series of interactions between thymocytes and the stromal component of the organ. MPZL2 (myelin protein zero-like 2), also known as EVA (epithelial V-like antigen) or EVA1, is a 215 amino acid single-pass type I membrane protein that belongs to the myelin P0 protein family. Containing one Ig-like V-type (immunoglobulin-like) domain and two potential N-glycosylation sites in its extracellular domain, MPZL2 is expressed in thymus epithelium and is strongly down-regulated by thymocyte developmental progression. MPZL2 is considered an immunoglobulin-like adhesion molecule that associates with the cytoskeleton and may participate in mediating cell adhesion through homophilic interaction. MPZL2 exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 11q23.3

## REFERENCES

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3. DeMonte, L., et al. 2007. EVA regulates thymic stromal organisation and early thymocyte development. *Biochem. Biophys. Res. Commun.* 356: 334-340.
4. Cao, T., et al. 2007. Mutation in *Mpzl3*, a novel [corrected] gene encoding a predicted [corrected] adhesion protein, in the rough coat (*rc*) mice with severe skin and hair abnormalities. *J. Invest. Dermatol.* 127: 1375-1386.
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7. Willems, A., et al. 2010. Selective ablation of the androgen receptor in mouse sertoli cells affects sertoli cell maturation, barrier formation and cytoskeletal development. *PLoS ONE* 5: e14168.
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## CHROMOSOMAL LOCATION

Genetic locus: MPZL2 (human) mapping to 11q23.3; *Mpzl2* (mouse) mapping to 9 A5.2.

## SOURCE

MPZL2 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of MPZL2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168631 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MPZL2 (D-15) is recommended for detection of MPZL2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with MPZL1 or MPZL3.

MPZL2 (D-15) is also recommended for detection of MPZL2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MPZL2 siRNA (h): sc-96927, MPZL2 siRNA (m): sc-149546, MPZL2 shRNA Plasmid (h): sc-96927-SH, MPZL2 shRNA Plasmid (m): sc-149546-SH, MPZL2 shRNA (h) Lentiviral Particles: sc-96927-V and MPZL2 shRNA (m) Lentiviral Particles: sc-149546-V.

Molecular Weight of MPZL2: 24 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.