

# MS4A4E (E-18): sc-243535

## BACKGROUND

MS4A (membrane-spanning 4-domain family, subfamily A) is a large family of proteins that includes at least 26 members in mouse and humans. Flanked by amino- and carboxyl- cytoplasmic regions, MS4A family members contain four highly conserved transmembrane domains. CD20, the most well-known MS4A family member, is a B-cell-specific molecule that functions as a calcium-permeable cation channel and is known to accelerate the G<sub>0</sub> to G<sub>1</sub> progression induced by IGF-1. MS4A4E (membrane-spanning 4-domains, subfamily A, member 4E) is a 132 amino acid multi-pass membrane protein that exists as three alternatively spliced isoforms. The gene encoding MS4A4E maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: MS4A4E (human) mapping to 11q12.2.

## RESEARCH USE

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

## SOURCE

MS4A4E (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MS4A4E of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243535 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MS4A4E (E-18) is recommended for detection of MS4A4E of 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 other MS4A4 family members.

Suitable for use as control antibody for MS4A4E siRNA (h): sc-96534, MS4A4E shRNA Plasmid (h): sc-96534-SH and MS4A4E shRNA (h) Lentiviral Particles: sc-96534-V.

Molecular Weight of MS4A4E isoforms: 15/10/12 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.

## PROTOCOLS

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