

CPXM2 (G-14): sc-136632

BACKGROUND

Members of the M14 metalloproteinase family serve many diverse functions and are divided into three subfamilies based on structure, function and amino acid sequence similarity. Belonging to the N/E subfamily, CPXM2 (inactive carboxypeptidase-like protein X2) is a 756 amino acid protein that contains a F5/8 type C domain and is secreted. Most members of the N/E subfamily contain several domains, including an active carboxypeptidase domain and signal peptide, and are thought to function mostly in protein-protein interactions and/or protein-membrane interactions, thereby targeting the protein to specific locations within the secretory pathway. CPXM2 is a unique member of this subfamily in that it does not appear to exhibit any enzymatic activity due to lack of several active-site residues that are present in the catalytic domain of other members of the N/E subfamily. Expression of the closely related protein CPXM is regulated during osteoclastogenesis, suggesting that CPXM may play a role in osteoclast differentiation.

REFERENCES

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3. Wei, S., et al. 2002. Identification and characterization of three members of the human metalloproteinase gene family. *J. Biol. Chem.* 277: 14954-14964.
4. Chang, E.J., et al. 2004. Elucidation of CPX-1 involvement in RANKL-induced osteoclastogenesis by a proteomics approach. *FEBS Lett.* 564: 166-170.
5. Hillman, R.T., et al. 2004. An unappreciated role for RNA surveillance. *Genome Biol.* 5: R8.
6. Pallarès, I., et al. 2005. Structure of human carboxypeptidase A4 with its endogenous protein inhibitor, latxin. *Proc. Natl. Acad. Sci. USA* 102: 3978-3983.
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CHROMOSOMAL LOCATION

Genetic locus: CPXM2 (human) mapping to 10q26.13; Cpxm2 (mouse) mapping to 7 F3.

SOURCE

CPXM2 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CPXM2 of human origin.

STORAGE

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

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-136632 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CPXM2 (G-14) is recommended for detection of CPXM2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 CPXM.

CPXM2 (G-14) is also recommended for detection of CPXM2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CPXM2 siRNA (h): sc-90646, CPXM2 siRNA (m): sc-142554, CPXM2 shRNA Plasmid (h): sc-90646-SH, CPXM2 shRNA Plasmid (m): sc-142554-SH, CPXM2 shRNA (h) Lentiviral Particles: sc-90646-V and CPXM2 shRNA (m) Lentiviral Particles: sc-142554-V.

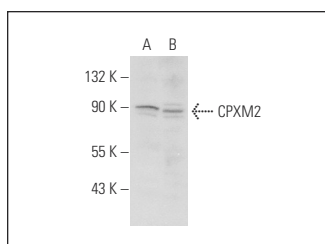
Molecular Weight of CPXM2: 86 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or BJAB whole cell lysate: sc-2207.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



CPXM2 (G-14): sc-136632. Western blot analysis of CPXM2 expression in BJAB (A) and HeLa (B) whole cell lysates.

RESEARCH USE

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