

# CPM (H-159): sc-98698

## BACKGROUND

Carboxypeptidase M (CPM) is a 443 amino acid protein belonging to the metallo-carboxypeptidase (metallo-CP) family. Localized to the cell membrane, CPM contains a hydrophobic regions in the N and C-termini and has six potential asparagine-linked glycosylation sites. Functionally, CPM specifically removes C-terminal basic amino acids (Arginine or lysine) from proteins and polypeptides and is believed to play a role in monocyte to macrophage differentiation. CPM is also thought to play an important role in the control of peptide hormone and growth factor activity at the cell surface, as well as in the membrane-localized degradation of extracellular proteins. Three isoforms of this protein exist as a result of alternative splicing events.

## REFERENCES

1. Rehli, M., et al. 1995. Carboxypeptidase M is identical to the MAX.1 antigen and its expression is associated with monocyte to macrophage differentiation. *J. Biol. Chem.* 270: 15644-15649.
2. Krause, S.W., et al. 1998. Carboxypeptidase M as a marker of macrophage maturation. *Immunol. Rev.* 161: 119-127.
3. Rehli, M., et al. 2000. The membrane-bound ectopeptidase CPM as a marker of macrophage maturation *in vitro* and *in vivo*. *Adv. Exp. Med. Biol.* 477: 205-216.
4. Reverter, D., et al. 2004. Crystal structure of human carboxypeptidase M, a membrane-bound enzyme that regulates peptide hormone activity. *J. Mol. Biol.* 338: 257-269.
5. Skidgel, R.A., et al. 2006. Kinin- and angiotensin-converting enzyme (ACE) inhibitor-mediated nitric oxide production in endothelial cells. *Biol. Chem.* 387: 159-165.
6. Deiteren, K., et al. 2007. The role of the S1 binding site of carboxypeptidase M in substrate specificity and turn-over. *Biochim. Biophys. Acta* 1774: 267-277.
7. Schremmer-Danninger, E., et al. 2007. Kinin receptors in stimulated and characterized decidua tissue-derived cells. *Int. Immunopharmacol.* 7: 103-112.

## CHROMOSOMAL LOCATION

Genetic locus: CPM (human) mapping to 12q15; Cpm (mouse) mapping to 10 D2.

## SOURCE

CPM (H-159) is a rabbit polyclonal antibody raised against amino acids 285-429 mapping at the C-terminus of CPM 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.

## STORAGE

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

## APPLICATIONS

CPM (H-159) is recommended for detection of CPM 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).

CPM (H-159) is also recommended for detection of CPM in additional species, including equine and canine.

Suitable for use as control antibody for CPM siRNA (h): sc-72986, CPM siRNA (m): sc-72987, CPM shRNA Plasmid (h): sc-72986-SH, CPM shRNA Plasmid (m): sc-72987-SH, CPM shRNA (h) Lentiviral Particles: sc-72986-V and CPM shRNA (m) Lentiviral Particles: sc-72987-V.

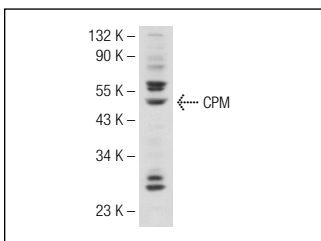
Molecular Weight of CPM: 51 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CPM (H-159): sc-98698. Western blot analysis of CPM expression in BJAB whole cell lysate.

## 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.