

# MRP-L28 (A-10): sc-390714

## BACKGROUND

MRP-L28 (39S ribosomal protein L28, melanoma-associated antigen recognized by T lymphocytes) is a mitochondrial protein that belongs to the ribosomal protein L28P family. MRP-L28 potentially represents an important therapeutic reagent for HLA-A24 (A24) patients as this antigen is recognized by tumor-infiltrating lymphocyte (TIL) 1290, which targets the A24 serotype. HLA-A24 (A24) is an HLA-A serotype that identifies the more common HLA-A24 gene products. A24 is a split antigen that is also recognized by the A9 broad antigen type and the similar A23 types. A24 is common in Austronesia and has one of the highest A allele frequencies for a number of peoples, including Papua New Guineans, indigenous Taiwanese (eastern tribals), Yupik and Greenland Eskimos. MRP-L28 is found in a variety of normal tissues including spleen, testis, thymus, liver, kidney, brain, adrenal, lung and retinal tissue.

## REFERENCES

- Robbins, P.F., et al. 1995. Cloning of a new gene encoding an antigen recognized by melanoma-specific HLA-A24-restricted tumor-infiltrating lymphocytes. *J. Immunol.* 154: 5944-5950.
- Robbins, P.F., et al. 1996. A mutated  $\beta$ -catenin gene encodes a melanoma-specific antigen recognized by tumor infiltrating lymphocytes. *J. Exp. Med.* 183: 1185-1192.
- Kawakami, Y., et al. 2000. Recognition of shared melanoma antigens in association with major HLA-A alleles by tumor infiltrating T lymphocytes from 123 patients with melanoma. *J. Immunother.* 23: 17-27.
- Walsh, D.W., et al. 2002. Genomic differences between *Candida glabrata* and *Saccharomyces cerevisiae* around the MRPL28 and GCN3 loci. *Yeast* 19: 991-994.
- Wong, S., et al. 2002. Gene order evolution and paleopolyploidy in hemiascomycete yeasts. *Proc. Natl. Acad. Sci. USA* 99: 9272-9277.
- Marc, M.M., et al. 2007. Lung tissue and tumour-infiltrating T lymphocytes in patients with non-small cell lung carcinoma and chronic obstructive pulmonary disease (COPD): moderate/severe versus mild stage of COPD. *Scand. J. Immunol.* 66: 694-702.
- Suda, T., et al. 2007. Identification of human leukocyte antigen-A24-restricted epitope peptides derived from gene products upregulated in lung and esophageal cancers as novel targets for immunotherapy. *Cancer Sci.* 98: 1803-1808.

## CHROMOSOMAL LOCATION

Genetic locus: MRPL28 (human) mapping to 16p13.3; Mrpl28 (mouse) mapping to 17 A3.3.

## SOURCE

MRP-L28 (A-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 17-40 of MRP-L28 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  $\mu$ g IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390714 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

MRP-L28 (A-10) is recommended for detection of MRP-L28 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

Suitable for use as control antibody for MRP-L28 siRNA (h): sc-62643, MRP-L28 siRNA (m): sc-62644, MRP-L28 shRNA Plasmid (h): sc-62643-SH, MRP-L28 shRNA Plasmid (m): sc-62644-SH, MRP-L28 shRNA (h) Lentiviral Particles: sc-62643-V and MRP-L28 shRNA (m) Lentiviral Particles: sc-62644-V.

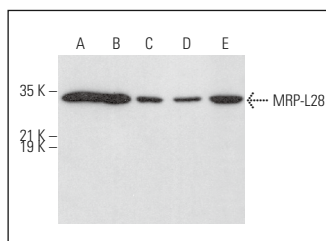
Molecular Weight of MRP-L28: 30 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Caco-2 cell lysate: sc-2262 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

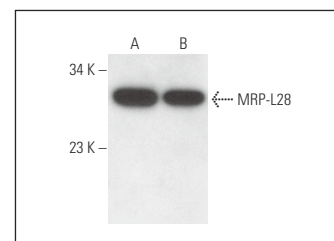
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



MRP-L28 (A-10): sc-390714. Western blot analysis of MRP-L28 expression in HeLa (A), Caco-2 (B), NTERA-2 cl.D1 (C) and C2C12 (D) whole cell lysates and rat heart tissue extract (E).



MRP-L28 (A-10): sc-390714. Western blot analysis of MRP-L28 expression in Hs 294T (A) and HeLa (B) whole cell lysates.

## RESEARCH USE

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