

# MAGE-D4/MAGE-D4B (F-3): sc-398908

## BACKGROUND

MAGE-D4 (melanoma-associated antigen D4, MAGE-E1 antigen) and MAGE-D4B (melanoma-associated antigen D4B) are 741 amino acid proteins encoded by the human gene MAGED4 and MAGED4B, respectively. Genes of the MAGE family direct the expression of tumor antigens that are recognized on human melanomas by autologous cytolytic T lymphocytes. MAGE-D4/MAGE-D4B are believed to be glioma-specific members of MAGE family. Among cancer cells, only in glioma cells are both isoforms of MAGE-D4/MAGE-D4B specifically expressed. Among normal tissues, MAGE-D4/MAGE-D4B are expressed only in brain and ovary. Although MAGE-D4/MAGE-D4B are expressed at high levels in malignant tumors as compared to normal tissue, MAGE-D4/MAGE-D4B protein expression is not considered to be of prognostic significance.

## REFERENCES

1. Sasaki, M., et al. 2001. MAGE-E1, a new member of the melanoma-associated antigen gene family and its expression in human glioma. *Cancer Res.* 61: 4809-4814.
2. Kawano, Y., et al. 2001. Structural characterization and chromosomal localization of the MAGE-E1 gene. *Gene* 277: 129-137.
3. Wang, L., et al. 2004. Cloning of human testicular carcinoma antigen MAGE-E1 gene and its expression in *E. coli*. *Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi* 19: 148-149.
4. Lurquin, C., et al. 2005. Contrasting frequencies of antitumor and anti-vaccine T cells in metastases of a melanoma patient vaccinated with a MAGE tumor antigen. *J. Exp. Med.* 201: 249-257.
5. Krämer, B.F., et al. 2005. MAGED4-expression in renal cell carcinoma and identification of an HLA-A\*25-restricted MHC class I ligand from solid tumor tissue. *Cancer Biol. Ther.* 4: 943-948.
6. Chapiro, J., et al. 2006. Destructive cleavage of antigenic peptides either by the immunoproteasome or by the standard proteasome results in differential antigen presentation. *J. Immunol.* 176: 1053-1061.
7. Liang, Z., et al. 2006. The expression of 11 cancer/testis (CT) antigen genes in esophageal carcinoma. *Zhonghua Zhong Liu Za Zhi* 27: 534-537.
8. Ito, S., et al. 2006. Expression of MAGE-D4, a novel MAGE family antigen, is correlated with tumor-cell proliferation of non-small cell lung cancer. *Lung Cancer* 51: 79-88.

## CHROMOSOMAL LOCATION

Genetic locus: MAGED4/MAGED4B (human) mapping to Xp11.22.

## SOURCE

MAGE-D4/MAGE-D4B (F-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 62-85 within an internal region of MAGE-D4 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<sub>2a</sub> 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-398908 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

MAGE-D4/MAGE-D4B (F-3) is recommended for detection of MAGE-D4 and MAGE-D4B of human origin by Western Blotting (starting dilution 1:100, 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).

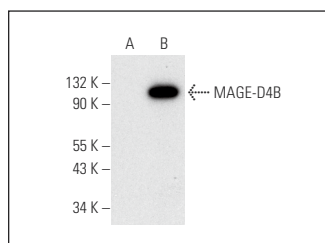
Molecular Weight of MAGE-D4/MAGE-D4B: 82 kDa.

Positive Controls: MAGE-D4B (h): 293T Lysate: sc-369074 or ES-2 cell lysate: sc-24674.

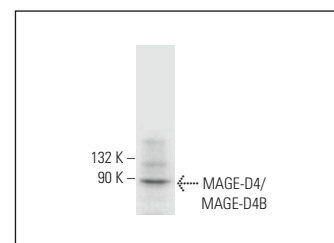
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



MAGE-D4/MAGE-D4B (F-3): sc-398908. Western blot analysis of MAGE-D4B expression in non-transfected: sc-117752 (A) and human MAGE-D4B transfected: sc-369074 (B) 293T whole cell lysates.



MAGE-D4/MAGE-D4B (F-3): sc-398908. Western blot analysis of MAGE-D4/MAGE-D4B expression in ES-2 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) for detailed protocols and support products.