Revision 1

Store at -20C

#68978

# MAGE-A10 Antibody

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|---|
| W, IP | H | Endogenous | 62 | Rabbit | #P43363 | 4109 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Western Blotting | 1:1000 |
| Immunoprecipitation | 1:100 |

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

## Specificity/Sensitivity

MAGE-A10 Antibody recognizes endogenous levels of total MAGE-A10 protein. This antibody does not cross-react with other MAGE-A family members.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro323 of human MAGE-A10 protein. Antibodies are purified by protein A and peptide affinity chromatography.

## Background

Cancer/testis antigens (CTAs) are a family of more than 100 proteins whose normal expression is largely restricted to immune privileged germ cells of the testis, ovary, and trophoblast cells of the placenta. Although most normal somatic tissues are void of CTA expression, due to epigenetic silencing of gene expression, their expression is upregulated in a wide variety of human solid and liquid tumors (1,2). As such, CTAs have garnered much attention as attractive targets for a variety of immunotherapy-based approaches to selectively attack tumors (3).

Melanoma-associated antigen-A10 (MAGE-A10) is a cancer testis antigen and belongs to the type I MAGE family of proteins. Unlike other members of the MAGE-A subfamily, MAGE-A10 is a nuclear protein (4). Research studies have shown that MAGE-A10 expression is normally restricted to the human testis and placenta but is aberrantly upregulated in a number of human solid tumors, such as lung cancer, melanoma, bladder cancer, and esophageal carcinoma (4-6). Due to its upregulated expression in human tumors and high degree of immunogenicity, MAGE-A10 has received significant attention as a novel immunotherapy target through the use of vaccines and adoptive cell therapy (7-9).

## Background References

1. Caballero, O.L. and Chen, Y.T. (2009) *Cancer Sci* 100, 2014-21.
2. De Smet, C. et al. (1999) *Mol Cell Biol* 19, 7327-35.
3. Gjerstorff, M.F. et al. (2015) *Oncotarget* 6, 15772-87.
4. Rimoldi, D. et al. (1999) *Int J Cancer* 82, 901-7.
5. Schultz-Thater, E. et al. (2011) *Int J Cancer* 129, 1137-48.
6. Lin, J. et al. (2004) *Clin Cancer Res* 10, 5708-16.
7. Valmori, D. et al. (2001) *Cancer Res* 61, 509-12.
8. Chianese-Bullock, K.A. et al. (2005) *J Immunol* 174, 3080-6.
9. Dutoit, V. et al. (2001) *Cancer Res* 61, 5850-6.

## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

## Applications Key

**W:** Western Blotting **IP:** Immunoprecipitation

## Cross-Reactivity Key

**H:** Human

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## Limited Uses

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