## MAGE-A3 Antibody

**Applications**
- Western blotting, Immunoprecipitation, Immunofluorescence, Immunohistochemistry, Chromatin Immunoprecipitation

**Species Cross-Reactivity**
- H: Human
- M: Mouse
- R: Rat
- X: Xenopus
- C: Chicken
- D: Dog
- P: Pig
- S: Mouse
- T: Mouse
- M: Mouse
- C: C. elegans
- D: D. melanogaster
- H: Human

**Molecular Wt.**
- 45 kDa

**Source**
- Rabbit

**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 antigen-A3 (MAGE-A3) is a cancer testis antigen and belongs to the type I MAGE family of proteins. The expression of MAGE-A3 is normally restricted to the human testis but is aberrantly upregulated in a number of human cancers, such as lung cancer, colorectal cancer, and multiple myeloma (4-6). Research studies have recently demonstrated that MAGE-A3 drives tumorigenesis as part of the MAGE-A3-TRIM28 ubiquitin ligase complex that promotes proteasomal degradation of the tumor suppressor kinase AMPK (7). Due to its upregulated and selective expression in human tumors and high degree of immunogenicity, MAGE-A3 has received significant attention as a novel immunotherapy target through the use of vaccines and adoptive cell therapy (8,9).

**Specificity/Sensitivity:** MAGE-A3 Antibody recognizes endogenous levels of total MAGE-A3 protein. This antibody cross-reacts with MAGE-A6.

**Recommended Antibody Dilutions:**
- Western blotting 1:1000
- Immunoprecipitation 1:50

**For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com**
Western blot analysis of extracts from 293T cells, mock transfected (-) or transfected with constructs expressing Myc/DDK-tagged full-length human MAGE-A3 protein (hMAGE-A3-Myc/DDK; +) and Myc/DDK-tagged full-length human MAGE-A6 protein (hMAGE-A6-Myc/DDK; +), using MAGE-A3 Antibody (upper), DYKDDDDK Tag Antibody #2368 (middle), and β-Actin (D6A8) Rabbit mAb #8457 (lower).