

□ Cat # RP-779

Recombinant (E.coli, GST tag) Human MAGE-1

Size: □ 2 ug

Melanomas and primary glial brain tumors express common melanoma associated antigens (MAAs). They are recognized by cytotoxic T-lymphocytes (CTL). These antigens belong to three main groups: MAGE, BAGE, and GAGE. The melanoma antigen genes (MAGE) family comprises 12 known genes, of which 6 are expressed in tumors; and are clustered at chromosomal location Xq28. They have been implicated in some hereditary disorders, such as dyskeratosis congenita. MAGE family members play important physiological and Pathological roles during embryogenesis, germ cell genesis, apoptosis, etc.

To date, dozens of MAGEs have been identified and classified into 2 subgroups, I and II. Subgroup I consists of antigens which expression is generally restricted to tumor or germ cells, also named as cancer/testis (CT) antigen. The MAGE family proteins share certain homologous regions, including the MAGE homology domain (MHD). Sequence comparison and analysis revealed 3 subgroups of acidic MAGEs, termed A, B, and C, and one basic subgroup, MAGE-D, which includes Necdin, Restin and others. Based on expression patterns, the MAGEs were further classified as belonging to either subgroup I or II. Members of subgroup I, including MAGE-A, -B, and -C. Members of subgroup I, including MAGE-A, -B, and -C, are expressed in malignant tumors and testis, but not in other normal tissues. These members are also named as cancer/testis (CT) antigen and tumor-specific antigen. In contrast, subgroups II MAGEs are expressed in various normal adult human tissues.

MAGE genes were initially analyzed from melanomas and turned out to have an almost exclusively neoplasm-specific expression pattern. It was identified that Melanoma antigen family A 1 belongs to the MAGEA gene family. The first human members of the MAGE gene family that have been described are expressed in tumor cells but silent in normal adult tissues except in the male germ line. Hence, they encode strictly tumor-specific antigens of various histological types (melanoma, brain tumors of glial origin, neuroblastoma, non-small cell lung cancer, breast, gastric, colorectal, ovarian, renal cell carcinomas) and not on normal tissues, the encoded antigen may serve as a marker of early detection and target for cancer immunotherapy.

Synonyms:

Melanoma-associated antigen 1, MAGE-1 antigen, Antigen MZ2-E, Cancer/testis antigen 1.1, CT1.1, MAGEA1, MAGE1, MAGE1A, MGC9326.

Source:

Recombinant full length human MAGE-1 protein IS expressed in *E.coli*. The MAGEA1 is fused to a GST tag purified by proprietary chromatographic techniques. Purified protein is supplied in 50mM Tris-Acetate, pH7.5, 1mM EDTA and 20% Glycerol.

Application:

ELISA and inhibition Assays, positive control for Western blot, Antibody production, Protein assay. Users must optimize the appropriate concentration and conditions for each assay.

Storage and Stability:

Store vial at -20°C to -80°C. When stored at the recommended temperature, this protein is stable for 12 months. **Prevent freeze-thaw cycles.** Store in liquid at 4oC for ~1 week or aliquots in suitable size and store at -20oC for long term storage.

Usage:

This item is for LABORATORY ESEARCH USE ONLY.

Reference: Bodey B In Vivo. (2002) Nov-Dec;16(6):583-8. Selvar SR Melanoma Res. 2010 Aug;20(4):280-92. Xiao J (2004) World J Gastroenterol 10(13):1849-1853

Related items:

Catalog#	ProdDescription
SP-51029-1	MAGE-3 Antigen (271-279) peptide [H-Phe-Leu-Trp-Gly-Pro-Arg-Ala-Leu-Val-OH; MW 158.3]
SP-70323-5	Mage-1 Antigen (161-169), human (AA: Glu-Ala-Asp-Pro-Thr-Gly-His-Ser-Tyr) (MW: 975.97)
SP-88258-5	[Ile161] MAGE - A2 (157-166) [Tyr-Leu-Gln-Leu-Ile-Phe-Gly-Ile-Glu-Val; MW: 1194.45]
SP-88928-5	MAGE-3 Antigen (167-176), human (AA: Met-Glu-Val-Asp-Pro-Ile-Gly-His-Leu-Tyr) (MW: 1173.36)

RP-779

141028P