Melanoma Inhibitory Activity Protein, human recombinant (rHuMIA)

Catalog No: 94928
Lot No: XXXXX
Source: *E. coli*
Synonyms: Melanoma-derived growth regulatory protein precursor, Cartilage-derived retinoic acid-sensitive protein, CD-RAP, MIA

Background

The Melanoma Inhibitory protein (MIA) was identified as an inhibitor of in vitro growth of malignant melanoma cells. The protein contains a SH3 domain. MIA acts as a potent tumor cell growth inhibitor for malignant melanoma cells and some other neuroectodermal tumors, including gliomas, in an autocrine fashion. In a study of human melanoma cell lines with different metastatic capacity MIA mRNA expression appeared to be inversely correlated with pigmentation. MIA has been shown to represent a very sensitive and specific serum marker for systemic malignant melanoma that might be useful for staging of primary melanomas, detection of progression from localized to metastatic disease during follow-up, and monitoring therapy of advanced melanomas.

Description

Melanoma Inhibitory Activity human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain consisting of 108 amino having a total molecular mass of 12237 Dalton. MIA is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated (1 mg/ml) solution containing 20 mM potassium-phosphate pH 7 and 150 mM potassium chloride.

Solubility

It is recommended to reconstitute the lyophilized Melanoma Inhibitory Activity in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized MIA, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution MIA should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

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MGPMPKLADR KLCADQECSS HPISMAVALQ DYMAPDCRFL TIHRGQVVYV FSLKGRGRFL WGGSVQGDYY GDLAARLGYF
PSSIVREDQT LKVDVKTDKW DFYCQ
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Activity

The biological activity is calculated by the inhibiting effect on the invasion of Mel In Tumor cells and found active in Mel In assay.

Usage

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