



Recombinant Protein Technical Manual

Recombinant Human MIA Protein (His Tag)

RPES4424

Product Data:

Product SKU: RPES4424

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: Q16674

Protein Information:

Molecular Mass: 13.3 kDa

AP Molecular Mass: 14 kDa

Tag: C-6His

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Melanoma-Derived Growth Regulatory Protein; Melanoma Inhibitory Activity Protein; MIA

Immunogen Information:

Sequence: Gly25-Gln131

Background:

Melanoma Inhibitory Activity Protein (MIA) is an autocrine growth regulatory protein secreted from chondrocytes and malignant melanoma cells, which was the first discovered member of a family of secreted cytokines termed the MIA/OTOR family. The four known members of this family: MIA, MIA2, OTOR and TANGO each contain a Src homology-3 (SH3)-like 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 and promotes melanoma metastasis by binding competitively to fibronectin and laminin in a manner that results in melanoma cell detachment from the extracellular matrix *in vivo*. The protein 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. Elevated levels of MIA may represent a clinically useful marker for diagnosis of melanoma metastasis as well as a potential marker for rheumatoid arthritis.