

# Recombinant Human Melanoma Inhibitor Activity Protein (rHuMIA)

## ChemWhat Technical Data Sheet (TDS)

---

<b>Catalog Number:</b>	601-48
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 12.1 kDa, a single non-glycosylated polypeptide chain containing 107 amino acids.
<b>Quantity:</b>	5µg/20µg/1000µg
<b>AA Sequence:</b>	GPMPKLADRK LCADQECSTP ISMAVALQDY MAPDCRFLTI HRGQVVYVFS KLKGRGRLFW GGSVQGDDYDG DLAARLGYFP SIVREDQTL KPGKVDVKTD KWDFYCQ
<b>Purity:</b>	> 98 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using human A375 cell line is less than 5 µg/ml, corresponding to a specific activity of > 200 IU/mg.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4, with 5 % Trehalose.
<b>Endotoxin:</b>	Less than 0.1 EU/µg of rHuMIA as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

---

### ***Human Melanoma Inhibitor Activity Protein***

MIA is an autocrine growth regulatory protein, secreted from chondrocytes and malignant melanoma cells, that 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. Elevated levels of MIA may represent a clinically useful marker for diagnosis of melanoma metastasis, as well as a potential marker for rheumatoid arthritis. The MIA is a member of the MIA/OTOR family, which also includes MIA, OTOR, and TANGO, and they share a Src homology-3 (SH3)-like domain. Recombinant Human MIA is a 12.1 kDa globular protein containing 107 amino acid residues, including two intramolecular disulfide bonds.