

**ChemWhat** Recombinant Murine Fibroblast Growth Factor-8  
A brand under Watson (rMuFGF-8)

**ChemWhat Technical Data Sheet (TDS)**

<b>Catalog Number:</b>	124-08
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 28.1 kDa, a single non-glycosylated polypeptide chain containing 246 amino acids.
<b>Quantity:</b>	5µg/25µg/1000µg
<b>AA Sequence:</b>	QVRSAAQKRG PGAGNPADTL GQGHEDRPFG QRSRAGKNFT NPAPNYPEEG SKEQRDSVLP KVTQRHVREQ SLVTDQLSRR LIRTYQLYSR TSGKHVQVLA NKRINAMAED GDPFAKLIVE TDTFGSRVRV RGAETGLYIC MNKKGKLIK SNGKGKDCVF TEIVLENNYT ALQNAKYEGW YMAFTRKGRP RKGSKTRQHQ REVHFMKRLP RGHHTTEQSL RFEFLNYPPF TRSLRGSQRT WAPEPR
<b>Purity:</b>	> 97 % 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 murine balb/c 3T3 cells is less than 5.0 ng/ml, corresponding to a specific activity of > 2.0 × 10 <sup>5</sup> IU/mg in the presence of 10 µg/ml of heparin.
<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, 500 mM NaCl.
<b>Endotoxin:</b>	Less than 1EU/µg of rMuFGF-8 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>	<b>ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.</b>

***Murine Fibroblast Growth Factor-8***

Murine FGF-8 is a heparin binding growth factor belonging to the FGF family, which plays a central role during prenatal development, postnatal growth and regeneration of a variety of tissues, by promoting cellular proliferation and differentiation. Murine FGF-8 is first purified from an androgen-dependent mouse mammary carcinoma cell line as an androgen induces secretion. Cloning and analysis of the murine FGF8 gene revealed at least eight potential protein isoforms (FGF-8 a-h). Murine FGF-8a and b share 100 % amino acid identity with that in humans, and murine FGF-8e and f share 98 % amino acid identity with humans. None of the FGF-8 isoforms exhibited activity to FGFR1b, 2b, 3b, but FGFR2c, 3c and FGFR4 can be activated by several FGF-8 isoforms. FGF-8 plays an important role in the regulation of embryonic development, cell proliferation, cell differentiation and cell migration, and it is required for normal brain, eye, ear and limb development during embryogenesis.