

Division of Signal Transduction Therapy

Standard Operating Procedure

Preparation of Leukemia Inhibitory Factor [23 – 203 mouse]

Enzyme description:- LIF [23 – 203 mouse]

Clone number:- DU 1715

Source:- Recombinant

Expression system:- *E. coli*

Tag:- N-terminal GST

Purification method:- GSH Sepharose

Calculated molecular mass:-

Monoisotopic 46, 629.10 daltons

Average Mass 46, 659.39 daltons

[cysteines reduced, methionines have not been oxidised]

Theoretical pI:- 7.93

Purity:- 90 %

Enzyme storage buffer:-

Phosphate Buffered Saline

Storage temperature:- –70 °C

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Clone Data Sheet

LIF [23 – 203 mouse]

<u>Protein</u>	LIF [23 – 203 mouse]
<u>Clone number</u>	DU 1715
<u>Species</u>	Mouse
<u>Accession number</u>	NP_032527.1
<u>Tags</u>	N-terminal GST
<u>Bacterially expressed protein</u>	MSPILGYWKIKGLVQPTRLLLEYLEEKYEEHLYERDEGDKWRNKK FELGLEFPNLPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERE ISMLEGAVLDIRYGVSRIAYSKDFETLKVDFLSKLPEMLKMFEDR LCHKTYLNGDHVTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFKK RIEAIPQIDKYLKSSKYIAWPLQGWQATFGGGDHPPKSDLEVLFO <u>GPLGSPLPITPVNATCAIRHPCHGNLMNQIKNQLAQLNGSANALF</u> ISYYTAQXEPFPNNVEKLCAPNMTDFPSFHGNGTEKTKLVELYRM VAYLSASLTNITRDQKVLNPTAVSLQVKLNATIDVMRGLLSNVLC RLCNKYRVGHVDVPPVDPHSDKEAFQRKKLGCQLLGTYKQVISVV VQAF
<u>Native sequence</u>	Amino acids G23 – F203 of mouse LIF. Residue G229 of the fusion protein is equivalent to G23 of the native enzyme. The GST tag is located at residues 1 - 220.
<u>Protease cleavage</u>	PreScission (<u>LEVLFQGP</u>) residues 220 - 227
<u>Cloning sites</u>	<i>Bam</i> H1 and <i>Eco</i> R1 sites of pGex6P-1

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