MRCPPU Reagents and Services

Standard Operating Procedure

Preparation of CDKL5 [350 – 650]

Enzyme description:- CDKL5 [350 – 650]

Clone number:- DU 50406

Source:- Recombinant

Expression system:- *E.coli*

Tag:- N-terminal GST

Purification method:- GSH Agarose

Calculated molecular mass:-
Monoisotopic 59, 590.85 daltons
Average Mass 59, 628.20 daltons
[cysteines reduced, methionines have not been oxidised

Theoretical pI:- 8.75

Purity:- >80 %

Enzyme storage buffer:-
50 mM Tris-HCl pH 7.5, 270 mM Sucrose, 150 mM NaCl, 0.1 mM EGTA, 0.1 % 2-mercaptoethanol, 1 mM benzamidine, 0.2 mM PMSF

Storage temperature:- -70 °C

MRCPPU Reagents and Services

Clone Data Sheet

CDKL5 [350 - 650]

Protein CDKL5 [350 - 650]

Clone number DU 50406

Species Human

Accession number NM_003159.3

Tags N-terminal GST

Bacterially expressed protein

MSPILGYWKIKGLVQPTRLLLEYLEEKYEEHLYERDEGDKWRNKKFELG
LEFPNLPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAEISMLEGA
VLDIRYGVSRIAYSKDFETLKVDFLSKLPEMLKMFEDRLCHKTYLNGDH
VTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFKKRIEAIPQIDKYLKSS
KYIAWPLQGWQATFGGGDHPPKSDLEVLFQGPLGS**SVGLPRADEGLPAN**
ESFLNGNLAGASLSPLHTKTYQASSQPGSTSKDLTNNNIPHLLSPKEAK
SKTEFDFNIDPKPSEGPGTKYLKSNSRSQQNRHSFMESSQSKAGTLQPN
EKQSRHSYIDTIPQSSRSPSYRTKAKSHGALSDSKSVSNLSEARAQIAE
PSTSRYFPSSCLDLNSPTSPTPTRHSDTRTLLSPSGRNNRNEGTLDSRR
TTTRHSKTMEELKLPEHMDSSHSHSLSAPHESFSYGLGYTSPFSSQQRP
HRHSMYVTRDKVRAKGLDGSLSIGQGMAARANSLQLLSPQPG

Native sequence Amino acids S350 – G650 (K1030 end residue) of human CDKL5. Residue S232 of the fusion protein is equivalent to S350 of the native enzyme. The GST tag is located at residues 1 – 220.

Protease cleavage PreScission (LEVLFQGP) residues 221 - 228

Cloning sites *Bam*H1 and *Not*1 of pGEX6P-1