

CSF1-R

colony stimulating factor 1 receptor

Recombinant Human Active Protein Kinase

HGNC Symbol: CSF1R

Synonyms: c-FMS, CD115, CSFR, FIM2, FMS

Product No.: 0512-0000-1

Lot: 004

Description: Human CSF1-R, C-terminal fragment, amino acids K₅₄₃-C₉₇₂ (as in [NCBI/Protein](#) entry NP_005202.2), activated, N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: CSF1-R, Lot 004, was confirmed as CSF1-R by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 77,733 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: in vitro auto activation

Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20 % glycerol

Storage temperature: -80°C

For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.117 µg/µl

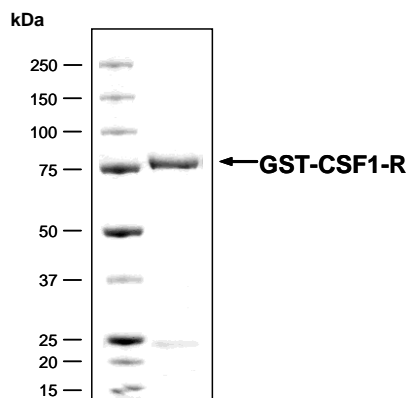
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

Specific kinase activity (P_i transfer): 50 pmol/µg × min

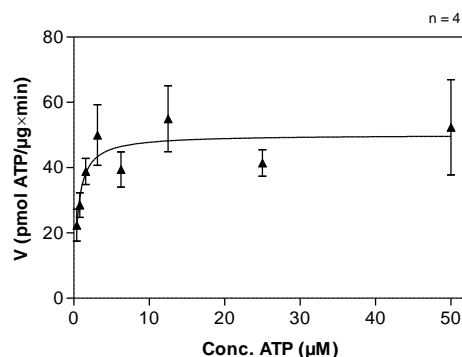
ATP-K_M: 0.5 µM

CSF1-R Lot 004:
Coomassie stain



2.0 µg GST-CSF1-R

CSF1-R Lot 004:
Determination of V_{max} and K_M value for ATP



Determination of K_M value & Specific activity:

- Assay conditions:
 - 60 mM HEPES-NaOH, pH 7.5
 - 3 mM MgCl₂
 - 3 mM MnCl₂
 - 3 µM Na-orthovanadate
 - 1.2 mM DTT
 - 50 µg / ml PEG_{20,000}
 - ATP (variable)
 - Substrate: Poly(Glu:Tyr)_{4:1}, 2.5 µg/ml
 - CSF1-R: 1 µg/ml
- Filter binding assay
- MSFC membrane (Millipore)

Additional assay technology:

CSF1-R Lot 004 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega. ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

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CSF1-R

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GST-CSF1-R Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI PQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RRRASVAAGI	240
241	LVPRGSPGLD	GICSRNSKPK	YQVRWKIIES	YEGNSYTFID	PTQLPYNEKW	EFPRNNLQFG	300
301	KTLGAGAFGK	VVEATAFGLG	KEDAVLKVAV	KMLKSTAHAD	EKEALMSELK	IMSHLGQHEN	360
361	IVNLLGACTH	GGPVLVITEY	CCYGDLLNFL	RRKAEAMLGP	SLSPGQDPEG	GVDYKNIHLE	420
421	KKYVRRDSGF	SSQGVDTYVE	MRPVSTSSND	SFSEQDL DKE	DGRPLELRDL	LHFSSQVAQG	480
481	MAFLASKNCI	HRDVAARNVL	LTNGHVAKIG	DFGLARDIMN	DSNYIVKGNA	RLPVKWM APE	540
541	SIFDCVYTVQ	SDVWSYGILL	WEIFSLGLNP	YGGILVNSKF	YKLVKDG YQM	AQPAFAPKNI	600
601	YSIMQACWAL	EPHTRPTFQQ	ICSFLQEQAQ	EDRRERDYTN	LPSSSRSGGS	GSSSSELEEE	660
661	SSSEHLTCCE	QGDIAQPLLQ	PNNYQFC				720

1-218: GST **Red**: HIS6-tag **Pink**: Thrombin cleavage site **blue**: CSF1-R fragment

CSF1-R wt ¹ Amino Acid Sequence							
1	MGPGVLLLLL	VATAWHGQGI	PVIEPSVPEL	VVKPGATVTL	RCVGN GSVEW	DGPPSPHWTL	60
61	YSDGSSSILS	TNNATFQNTG	TYRCTEPGDP	LGGSAAIHLY	VKD PARPWNV	LAQEVVVFED	120
121	QDALLPCLLT	DPVLEAGVSL	VRVRGRPLMR	HTNYSFSPWH	GFTIHRAKFI	QSQDYQCSAL	180
181	MGGRKVM SIS	IRLKVQKVIP	GPPALTLVPA	ELVRIRGEAA	QIVCSASSVD	VNFDVFLQHN	240
241	NTKLAIPQQS	DFHNNRYQKV	LTLNLDQVDF	QHAGNYSCVA	SNVQGKHST S	MFFRVVESAY	300
301	LNLSS EQNLI	QEVTVG EGLN	LKVMVEAYPG	LQGFNW TYLG	PFS DHQPEPK	LANATTKD TY	360
361	RHTFTLSLPR	LKPSEAGRYS	FLARNPGGWR	ALTFELTLRY	PPEVSVI WTF	INGSGTLLCA	420
421	ASGYPQPNVT	WLQCSGHTDR	CDEAQVLQVW	DDPYPEVLSQ	EPFHKVTVQS	LLTVETLEHN	480
481	QTYECRAHNS	VGSGSWAFIP	ISAGAHTHPP	DEFLFTP VVV	ACMSIMALLL	LLLLLLLLYKY	540
541	KQKPKYQVRW	KIIESYEGNS	YTFIDPTQLP	YNEKWEFPRN	NLQFGKTLGA	GAFGKVVEAT	600
600	AFGLGKEDAV	LKVAVKMLKS	TAHADEKEAL	MSELKIMSHL	GQHENIVNLL	GACTHG GPVL	660
661	VITEYCCYGD	LLNFLRRKAE	AMLGPSLSPG	QDPEGGVDYK	NIHLEK KYVR	RDSGFSSQGV	720
721	DTYVEMRPVS	TSSNDSFSEQ	DLDKEDGRPL	ELRDLLHFSS	QVAQGM AFLA	SKNCIHRDVA	780
781	ARNVLLTNGH	VAKIGDFGLA	RDIMNDSNYI	VKGNARLPVK	WMA PESIFDC	VYTVQSDVWS	840
841	YGILLWEIFS	LGLNPPY GIL	VNSKFYKLVK	DGYQMAQPAF	APKNIYSIMQ	ACWALEP THR	900
901	PTFQQICSFL	QEQAQEDRRE	RDYTNLPSSS	RSGGSGSSSS	ELEEESSSEH	LTCCEQGDIA	960
961	QPLLQPNNYQ	FC					1020

blue: CSF1-R sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_005202.2

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