

MST2

serine/threonine kinase 3

Recombinant Human Active Protein Kinase

Synonyms: STK3, KRS1

Product No.: 0699-0000-1

Lot: 003

Description: Human MST2, full length, amino acids M₁-F₄₉₁ (as in GenBank entry NM_006281.2), untagged, expressed in Sf9 insect cells

Product identity: MST2, Lot 003, was confirmed as MST2 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW: 56,884 Da

Expression: Baculovirus infected Sf9 cells

Purification: GST-Affinity Chromatography followed by 3C mediated removal of the GST tag

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

Storage temperature: -80°C
Avoid repeated freeze-thaw cycles!

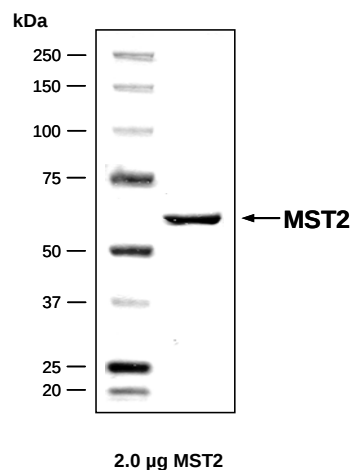
Protein concentration: 0.271 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Determination of K_m value & Specific activity:

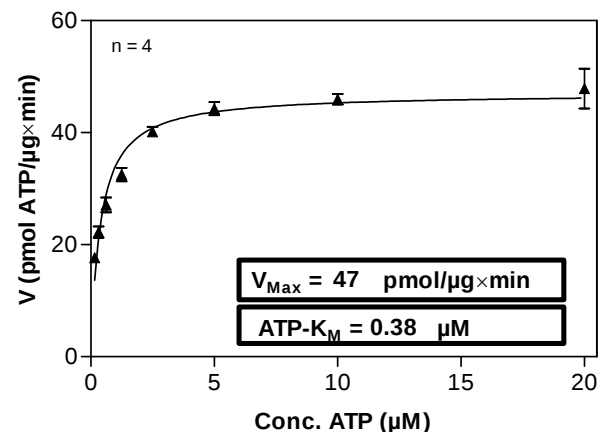
- Assay conditions:
 - 60 mM HEPES-NaOH, pH 7.5
 - 3 mM MgCl₂
 - 3 mM MnCl₂
 - 3 µM Na-orthovanadate
 - 1.2 mM DTT
 - 50 µg / ml PEG_{20,000}
 - ATP (variable)
 - Substrate: Casein, 100 µg / ml
 - MST2: 1.0 µg / ml
- Filter binding assay
MSFC membrane (Millipore)

Specific activity: 47 pmol/µg×min

Coomassie stain:



Determination of K_m value for ATP:



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MST2 Recombinant Fusion Protein Amino Acid Sequence								
1	GPLAML	MEQP	PAPKSKLKKL	SEDSLTQKPE	EVFDVLEKLG	EGSYGSVFKA	IHKESGQVVA	60
61	IKQVPVESDL	QEIIKEISIM	QQCDSPLYVK	YYGSYFKNTD	LWIVMEYCGA	GSVSDIIRLR		120
121	NKTLIEDEIA	TILKSTLKGL	EYLHFMRKIH	RDIKAGNILL	NTEGHAKLAD	FGVAGQLTDT		180
181	MAKRNTVIGT	PFWMAPEVIQ	EIGYNCVADI	WSLGITSIEM	AEGKPPYADI	HPMRAIFMIP		240
241	TNPPPTFRKP	ELWSDDFTDF	VKKCLVKNPE	QRATATQLLQ	HPFIKNAKPV	SILRDLITEA		300
301	MEIKAKRHEE	QQRELEEEEE	NSDEDELDSH	TMVKTSVESV	GTMRATSTMS	EGAQTMIEHN		360
361	STMLESDLGT	MVINSEDEEE	EDGTMKRNAT	SPQVQRPSFM	DYFDKQDFKN	KSHENCNQNM		420
421	HEPFPMSKNV	FPDNWKVPQD	GDFDFLKNLS	LEELQMRLKA	LDPMMEREIE	ELRQRYTAKR		480
481	QPILDAMDAK	KRRQONF						540

blue: MST2 fragment

MST2 wt ¹ amino acid sequence							
1	MEQPPAPKSK	LKKLSEDSLT	KQPEEVFDVL	EKLGEYSYGS	VFKAIHKESG	QVVAIKQVPV	60
61	ESDLQEIIKE	ISIMQQCDSP	YVVKYYGSYF	KNTDLWIVME	YCGAGSVSDI	IRLRNKTLE	120
121	DEIATILKST	LKGLEYLHFM	RKIHRDIKAG	NILLNTEGHA	KLADFGVAGQ	LTDTMAKRNT	180
181	VIGTPFWMAP	EVIQEIGYNC	VADIWSLGIT	SIEMAEGKPP	YADIHPMRAI	FMIPTNPPPT	240
241	FRKPELWSD	FTDFVKKCLV	KNPEQRATAT	QLLQHPFIKN	AKPVSILRDL	ITEAMEIKAK	300
301	RHEEQQRELE	EEEEENDEDE	LDSHTMVKTS	VESVGTMRAT	STMSEGAQTM	IEHNSTMLES	360
361	DLGTMVINSE	DEEEDGTMK	RNATSPQVQR	PSFMDYFDKQ	DFKNKSHENC	NQNMHEPFP	420
421	SKNVFPDNWK	VPQDGFDFL	KNLSLEELQM	RLKALDPMME	REIEELRQRY	TAKRQPILDA	480
481	MDAKKRRQQN	F					540

blue: MST2 sequence expressed in fusionprotein

¹NCBI/Protein accession number NP_006272.2