

Certificate of Analysis

KSR2, 10 µg

Recombinant human KSR2 expressed in insect cells



Part Number: A30500

Lot Number: 1861434

Immediate Storage: -80°C

Shipping Conditions: dry ice

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Description:

Recombinant human KSR2 (554-end) was expressed in insect cells using a N-terminal GST tag.

KSR2 or kinase suppressor of Ras 2 specifically regulates the activity of MEKK3 and COT but not other members of the MAP3K family. KSR2 interacts with a regulatory Raf molecule in cis to induce a conformational switch of MEK, facilitating MEK's phosphorylation by a separate catalytic Raf molecule in trans.

Accession Number:

The gene accession number for KSR2 is NP_775869.3.

Specific Activity:

135 nmoles of phosphate transferred to CREBtide synthetic peptide substrate (KRREILSRPSYR) per minute per mg of total protein at 30°C.

Concentration:

0.1 mg/mL total protein as measured using the Bradford protein assay with BSA as a standard.

Calculated **1,390 nM**.

Aliases:

none

Storage and Handling:

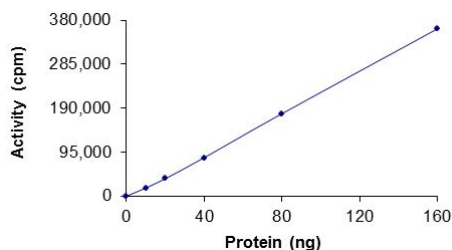
For maximum recovery please spin prior to use. Unless noted below, aliquots of the 5 µg, 10µg and 20µg sizes of kinase are not recommended as materials can be used in original packaging until exhausted. For larger sizes, the number of freeze/thaws may be reduced by preparing aliquots, aliquots below 20 µL are not recommended. **Please never store a kinase diluted.** If properly stored at -80°C, this product is guaranteed for 6 months from date of purchase.

Storage Buffer:

50 mM Tris-HCl (pH 7.5), 150 mM NaCl, 10mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF and 25% Glycerol.

QUALITY ASSURANCE

KSR2 Activity Graph



Dilution Buffer:

5 mM MOPS (pH 7.2), 2.5 mM β-glycerol-phosphate, 5 mM MgCl₂, 1 mM EGTA, 0.4 mM EDTA, 0.05mM DTT and 50 ng/µL BSA.

Assay Conditions:

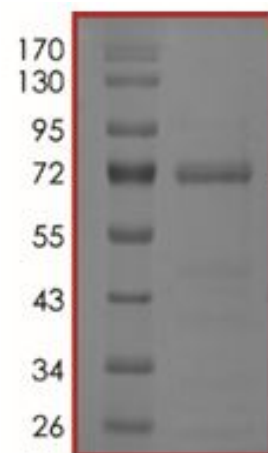
KSR2 was pre-diluted in enzyme dilution buffer and assayed in 5 mM MOPS (pH 7.2), 2.5 mM β-glycerol-phosphate, 5 mM MgCl₂, 1 mM EGTA, 0.4 mM EDTA, 0.05 mM DTT, with 50 µM ATP, trace [³³P]-γ-ATP and 200 µg/mL CREBtide synthetic peptide substrate (KRREILSRPSYR) for 15 minutes at 30°C.

Gel Information for KSR2

Page Description: Run on an SDS-PAGE gel and stained with Coomassie®.

Lane 1: Molecular Weight markers as labeled.

Lane 2: KSR2



Purity:

> 85% as determined by a Coomassie® blue stained SDS-PAGE gel.

Molecular Weight:

72.1 kDa. Calculated from the protein sequence(s).

Protein sequence alignment with reference sequence(s)

GenBank Accession Number: NP_775869.3

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1 MSPILGYWKIKGLVQPTRLLEYLEEKYEHLERDEGDKWRNKKFELGLEFPNLPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAEISMLEGAVL GST
1 MSPILGYWKIKGLVQPTRLLEYLEEKYEHLERDEGDKWRNKKFELGLEFPNLPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAEISMLEGAVL Life KSR2
1 -----NP_775869.3
101 DIRYGVSRIAYSKDFETLKVDFLSKLPEMLKMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFKKRIEAIPIQIDKYLKSSKYIA
101 DIRYGVSRIAYSKDFETLKVDFLSKLPEMLKMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFKKRIEAIPIQIDKYLKSSKYIA
1 -----
201 WPLQGWQATFGGGDHPKSD
201 WPLQGWQATFGGGDHPKSDLVPRGSRQKNFNLPAASHYKYKQFIFPDVVPVPEPTRAPQVILHPVTSNPILEGNPLLQIEVEPTSENEEVHDEAEE
1 -----RQKNFNLPAASHYKYKQFIFPDVVPVPEPTRAPQVILHPVTSNPILEGNPLLQIEVEPTSENEEVHDEAEE
220
301 SEDDFEEMNLSLLSARSFPRKASQTSIFLQEWDPFEQLEIGELIGKGRFGQVYHGRWHGEVAIRLIDIERDNEDQLKAFKREVMAYRQTRHENVVLFMG
75 SEDDFEEMNLSLLSARSFPRKASQTSIFLQEWDPFEQLEIGELIGKGRFGQVYHGRWHGEVAIRLIDIERDNEDQLKAFKREVMAYRQTRHENVVLFMG
220
401 ACMSPPHLAIITSLCKGRTLYSVVRDAKIVLDVNKTRQIAQEIIVKGMGYLHAKGILHKDLKSKNVFYDNGKVVITDFGLFSISGVLQAGRREDKLRIQNG
175 ACMSPPHLAIITSLCKGRTLYSVVRDAKIVLDVNKTRQIAQEIIVKGMGYLHAKGILHKDLKSKNVFYDNGKVVITDFGLFSISGVLQAGRREDKLRIQNG
220
501 WLCHLAPEIIRQLSPDTEEDKLPFSKHSDFVAFALGTIYWELHAREWPFKTPAEAIIWQMGTMKPNLSQIGMGKEISDILLFCWAFEQEERPTFTKLMMDM
275 WLCHLAPEIIRQLSPDTEEDKLPFSKHSDFVAFALGTIYWELHAREWPFKTPAEAIIWQMGTMKPNLSQIGMG
220
601 LEKLPKRNRRLSHPGHFWKSAEL
347

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* highlighted residues denote differences from the reference protein sequence(s).

Anita Targosz

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Date: 06/Jan/2017

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