

## ProQinase™ IKK-epsilon

inhibitor of nuclear factor kappa B kinase subunit epsilon

### Recombinant Human Active Protein Kinase

HGNC Symbol: IKBKE

Synonyms: IKK-i; IKKE; IKKI

Product No.: 0320-0000-1

Lot: 007

**Description:** Human IKK-epsilon, full length, amino acids M<sub>1</sub>-V<sub>716</sub> (as in [NCBI/Protein](#) entry NP\_054721.1), N-terminal GST-HIS<sub>6</sub> fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

**Product identity:** IKK-epsilon Lot 007, was confirmed as IKK-epsilon by mass spectroscopy LC-ESI-MS/MS

**Theoretical MW**<sub>Fusion Protein</sub>: 110059 Da

**Expression host:** Sf9 insect cells

**Purification:** GST-Affinity Chromatography

**Activation:** This kinase was not activated by special procedures

**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:** 0.055 µg/µl

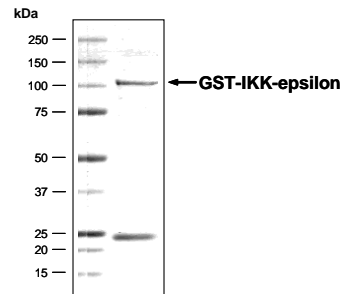
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

#### Biochemical Parameters:

Specific kinase activity (P<sub>i</sub> transfer): 42 pmol/µg\*min

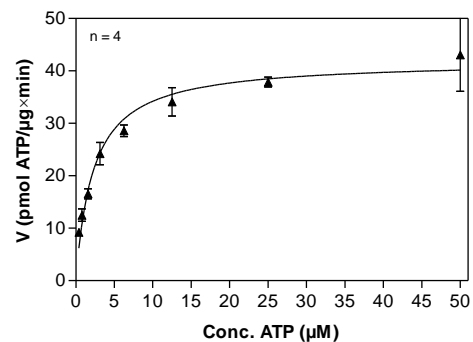
ATP-K<sub>M</sub>: 2.3 µM

#### IKK-epsilon Lot 007: Coomassie stain



2.0 µg GST-IKK-epsilon

#### IKK-epsilon Lot 007: Determination of V<sub>max</sub> and K<sub>M</sub> value for ATP



- Assay conditions:
  - 60 mM HEPES-NaOH, pH 7.5
  - 3 mM MgCl<sub>2</sub>
  - 3 mM MnCl<sub>2</sub>
  - 3 µM Na-orthovanadate
  - 1.2 mM DTT
  - 50 µg/ml PEG<sub>20,000</sub>
  - ATP (variable)
  - Substrate: Casein 100 µg/ml
  - Kinase: 1 µg/ml
- Filter binding assay
  - MSFC membrane (Millipore)

Sequence information

GST-IKK-epsilon Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWAQATF	GGDHPPKSD	PMGHHHHHGG	RRRASVAAGI	240
241	LVPRGSPGLD	GICSRNSMQS	TANYLWHTDD	LLGQGATASV	YKARNKKSGE	LVAVKVFNTT	300
301	SYLRPREVQV	REFEVLKRLN	HQNIKLVFAV	EETGGSRQKV	LVMEYCSSGS	LLSVLESPE	360
361	AFGLPEDEFL	VVLRVCVAGM	NHLRENGIVH	RDIKPGNIMR	LVGEEGQSIY	KLTDFGAARE	420
421	LDDDEKPFVS	YGTEEYLHPD	MYERAVLRKP	QQKAFGVTVD	LWSIGVTLYH	AATGSLPFIP	480
481	FGGPRRNKEI	MYRITTEKPA	GAIAGAQRRE	NGPLEWSYTL	PITCQLSLGL	QSOLVPILAN	540
541	IILEVEQAKCW	GFDQFFAETS	DILQRVVVHV	FSLSQAVLHH	IYIHAHNTIA	IFQEAHVHQT	600
601	SVAPRHQEYL	FEGHLCVLEP	SVSAQHIAHT	TASSPLTLFS	TAIPKGLAFR	DPALDVPKRV	660
661	PKVDLQADYN	TAKGVLGAGY	QALRLARALL	DGQELMFRGL	HWVMEVLQAT	CRRTLEVART	720
721	SLLYLSSSLG	TERFSSVAGT	PEIQELKAAA	ELRSRLRTLA	EVLSRCSQNI	TETQESLSSL	780
781	NRELKRSRDQ	VHEDRSIQI	QCCLDKMNF	YKQFKKSRMR	PGLGYNEEQI	HKLDKVNFSH	840
841	LAKRLQVFDQ	EECVQKYQAS	LVTHGKRMRV	VHETRNHLRL	VGCSVAACNT	EAQGVQESLS	900
901	KLLEELSHQL	LQDRAKGAQA	SPPPIAPYPS	PTRKDLLLHM	QELCEGMKLL	ASDLLDNNRI	960
961	IERLNRVPAP	PDV					1020

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site blue: IKK-epsilon

IKK-epsilon wt <sup>1</sup> Amino Acid Sequence							
1	MQSTANYLWH	TDDLQGGAT	ASVYKARNKK	SGELVAVKVF	NTTSYLRPRE	VQVREFEVL	60
61	KLNHQNIKLV	FAVEETGGS	QKVLVMEYCS	SGSLLSVLES	PENAFGLPED	EFLVLRV	120
121	AGMNLRENG	IVHRDIKPG	IMRLVGEEGQ	SIYKLTDFGA	ARELDDDEF	VSVYGTTEYL	180
181	HPDMYERAV	RKPOQKAFV	TVDLWSIGVT	LYHAATGSLP	FIPFGGPRRN	KEIMYRITTE	240
241	KPAGAIAGAQ	RRENGPLEWS	YTLPTICQLS	LGLSQSLVPI	LANILEVEQA	KCWGFDQFFA	300
301	ETSDILQRVV	VHVFSLQAV	LHHIYIHAHN	TIAIFQEAHV	KQTSVAPRHQ	EYLFEGHLCV	360
361	LEPSVSAQHI	AHTTASSPLT	LFSTAIPKGL	AFRDPALDVP	KFVPKVDLQA	DYNTAGVLG	420
421	AGYQALRLAR	ALLDQELMF	RGLHWVMEVL	QATCRRTLEV	ARTSLLYLSS	SLGTERFSSV	480
481	AGTPEIQELK	AAAEIERSLR	TLAEVLSRCS	QNITETQESL	SSLNRELVKS	RDQVHEDRSI	540
541	QQIQCCLDKM	NFIYKQFKKS	RMRPGLGYNE	EQIHKLDKVN	FSLAKRLLQ	VFQEECVQKY	600
601	QASLVTHGKR	MRVVHETRNH	LRLVGC SVAA	CNTEAQGVQE	SLSKLEELS	HQLLQDRAG	660
661	AQASPPPIAP	YSPTRKDLL	LHMQELCEGM	KLLASDLLDN	NRIIERLNRV	PAPPDV	720

blue: IKK-epsilon sequence expressed in recombinant protein

<sup>1</sup>NCBI/Protein accession number NP\_054721.1