

TYRO3

TYRO3 protein tyrosine kinase

Recombinant Human Active Protein Kinase

HGNC Symbol: TYRO3

Synonyms: Brt, Dtk, Etk-2, Rek, Sky, Tif

Product No.: 0449-0000-1

Lot: 001

Description: Human TYRO3, C-terminal fragment, amino acids R₄₅₂-C₈₉₀ (as in [NCBI/Protein](#) entry NP_006284.2), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: TYRO3 Lot 001, was confirmed as TYRO3 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 78,384 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

Storage buffer: 50 mM TRIS-HCl pH 8.0, 100 mM NaCl, 5 mM DTT, 4 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: 0.086 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

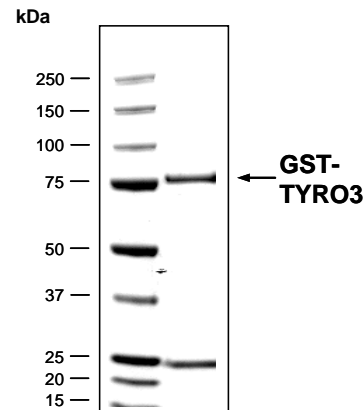
Biochemical Parameters:

Specific kinase activity (P_i transfer): 129 pmol/µg × min
ATP-K_M: 3.8 µM

Additional assay technology:

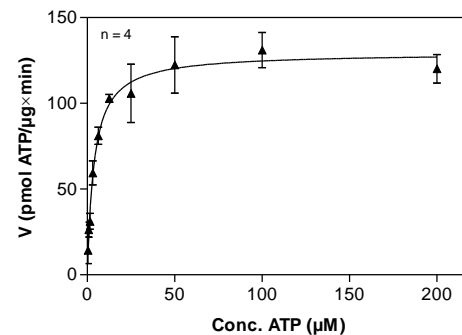
TYRO3 Lot 001 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega
ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

TYRO3 Lot 001: Coomassie stain



2.0 µg GST-TYRO3

TYRO3 Lot 001: 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}, 20 µg/ml
 - Kinase: 4 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

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GST-TYRO3 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDKVLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI	PQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	240
241	LVPRGSPGLD	GICSRKRRK	ETFRGQAFDS	VMARGEPAVH	FRAARSFNRE	RPERIEATLD	300
301	SLGISDELKE	KLEDVLIPEQ	QFTLGRMLGK	GEFGSVREAQ	LKQEDGSFVK	VAVKMLKADI	360
361	IASSDIEEFL	REAACMKEFD	HPHVAKLVGV	SLRSRAKGR	PIPMVILPFM	KHGDHLAFL	420
421	ASRIGENPFN	LPLQTLIRFM	VDIACGMEYL	SSRNFIHRDL	AARNCLAE	MTVCVADFGL	480
481	SRKIYSGDYY	RQGCASKLPV	KWLALES	LAD	NLYTVQSDVW	AFGVTMWEIM	540
541	ENAEIYNYLI	GGNRLKQ	PE	CMEDVYDL	MY	QCWSADPKQR	600
601	SASQDPLYIN	I ERAEPTAG	GSLELPG	R	DQ	PYSGAGD	660
661	AEQPGQAEHQ	PESPLNETQR	LLLLQGLLP	HSSC			720

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site blue: TYRO3 fragment

TYRO3 wt ¹ Amino Acid Sequence							
1	MALRRSMGRP	GLPPLPLPPP	PRLGLLLAAL	ASLLLPESAA	AGLKL	M	60
61	KLNC	S	VEGME	EPDIQWVKDG	AVVQNLDQLY	IPVSEQHWIG	120
121	DGGETEISQP	VWLTVEGV	PF	FTVEPKDLAV	PPNAPFQLSC	EAVGPPEPVT	180
181	GGPAPSPSVL	NVTGVTQSTM	FSCEAHNLK	G	LASSRTATVH	LQALPAAPFN	240
241	ASVAMPGAD	GRALLQSCTV	QVTQAPG	WE	VLA	VVPVP	300
301	ANALGPSPYA	DWVPFQTKGL	APASAPQNLH	A	IR	TDSGLIL	360
361	SWVQDNGTQD	ELTVEGTRAN	LTGWDPQKDL	I	VR	CVSNAV	420
421	GPPHSRTSWV	PVVLGVL	TAL	VTAAALALIL	L	R	480
481	RSFN	R	PER	IEATLDSLGI	S	DELKEKLED	540
541	DGSFVKVAVK	MLKADIIASS	DIEEFL	REAA	CMKEFDHPHV	AKLVG	600
601	VILP	FMK	HGD	LHAFLLASRI	GENPFNLPLQ	TLIRFM	660
661	CMLAEDMTVC	VADFGLSR	KI	YSGDYRQGC	ASKLPVKWLA	LESLADNLYT	720
721	TMWEIMTRGQ	TPYAGIENAE	IYNYLIG	GNR	LKQPPECMED	VYDLMYQCWS	780
781	CLRMELENIL	GQLSVLSASQ	DPLYINIERA	EEPTAGGSLE	LPGRDQPYSG	AGDGS	840
841	GGTPSDCRYI	LTPGGLAEQP	GQAEHQ	PESP	LNETQRLLLL	QQGLLP	900

blue: TYRO3 sequence expressed in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/Protein) accession number NP_006284.2

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