

## ProQinase™ RET G810S

ret proto-oncogene

Recombinant Human Active Protein Kinase

HGNC Symbol: RET

**Synonyms:** CDHF12, CDHR16, HSCR1, MEN2A, MEN2B, MTC1, PTC, RET51, RET-ELE1

**Product No.:** 1726-0000-1

**Lot:** 003

**Description:** Human RET, C-terminal fragment, amino acids H<sub>658</sub>-S<sub>1114</sub> (as in [NCBI/Protein](#) entry NP\_066124.1), N-terminal GST-HIS<sub>6</sub> fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

**Product identity:** RET G810S Lot 003, was confirmed as RET by mass spectroscopy LC-ESI-MS/MS

**Theoretical MW**<sub>Fusion Protein</sub>: 80,534 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:** 0.18 µg/µl

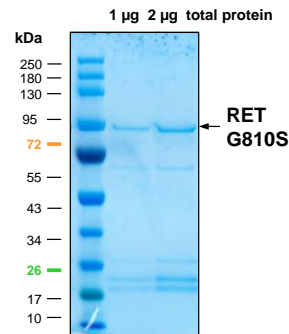
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

**Biochemical Parameters:**

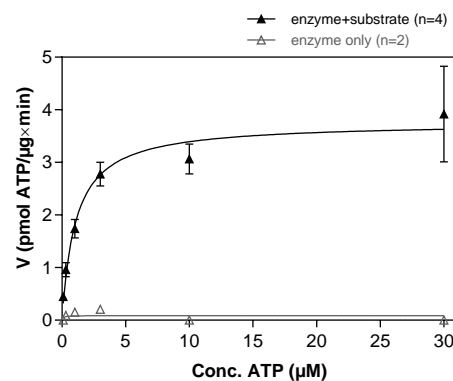
Specific kinase activity (P<sub>i</sub> transfer): 3.8 pmol/µg x min

ATP-K<sub>M</sub>: 1.1 µM

**RET G810S Lot 003:**  
Coomassie stain



**RET G810S Lot 003:**  
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: TRK-C derived peptide 5 µg/ml
  - Kinase: 3 µg/ml
- Filter binding assay  
MSIP membrane (Millipore)

Recombinant Proteins

Sequence information

GST-RET G810S Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHGG	RDSLEVLFGG	240
241	PLAMGARGRH	CYHKFAHKPP	ISSAEMTFRR	PAQAFPVSYS	SSGARRPSLD	SMENQVSVDA	300
301	FKILEDPKWE	FPRKNLVLGK	TLGEGEFGKV	VKATAFHLLK	RAGYTTVAVK	MLKENASPSSE	360
361	LRDLLSEFNV	LKQVNHPhVI	KLYGACSQDG	PLLLIVEYAK	YSLRGLFRE	SRKVGPGYLG	420
421	SGGSRNSSSL	DHPDERALTM	GDLISFAWQI	SQGMQYLAEM	KLVHRDLAAR	NILVAEGRKM	480
481	KISDFGLSRD	VYEEDSYVKR	SQGRIPVKWM	AIESLFDHIY	TTQSDVWSFG	VLLWEIVTLG	540
541	GNPYPGIPPE	RLFNLKLTGH	RMERPDNCSE	EMYRLMLQCW	KQEPDKRPVF	ADISKDLEKM	600
601	MVKRRDYLDL	AASTPSDSL	YDDGLSEET	PLVDCNNAPL	PRALPSTWIE	NKLYGMSDPN	660
661	WPGESPVPILT	RADGTNTGFP	RYPNDSVYAN	WMLSPSAAKL	MDTFDS		720

1-218: GST   Red: HIS6-tag   Green: 3C cleavage site   blue: RET fragment   boxed: G810S

RET wt <sup>1</sup> Amino Acid Sequence							
1	MAKATSGAAG	LRLLLLLLLP	LLGKVALGLY	FSRDAYWEKL	YVDQAAGTPL	LYVHALRDAP	60
61	EEVPSFRLGQ	HLYGTYRTRL	HENNWICIQE	DTGLLYLNRS	LDHSSWEKLS	VRNRGFPLLT	120
121	VYLVKVFSLPT	SLREGECQWP	GCARVYFSFF	NTSFPACSSL	KPRELCFPET	RPSFRIENR	180
181	PPGTFHQFRL	LPVQFLCPNI	SVAYRLLEGE	GLPFRCAPDS	LEVSTRWALD	REQREKYELV	240
241	AVCTVHAGAR	EEVVMVPFPV	TVYDEDDSD	TFPAGVDTAS	AVVEFKRKED	TVVATLRVFD	300
301	ADVVPASGEL	VRRYTSTLLP	GDTWAQQTFR	VEHWPNETSV	QANGSFVRAT	VHDYRLVLNR	360
361	NLSISENRTM	QLAVLVNDS	FQGGPAGVLL	LHFNVSVLPV	SLHLPSTYSL	SVSRRARFA	420
421	QIGKVCVENC	QAFSGINVQY	KLHSSGANCS	TLGVVTS AED	TSGILFVNDT	KALRRPKCAE	480
481	LHYMVVATDQ	QTSRQAQQL	LVTVEGSYVA	EEAGCPLSCA	VSKRRLECEE	CGGLGSPTR	540
541	CEWRQGDGKG	ITRNFSTCSP	STKTCPDGHC	DVVETQDINI	CPQDCLRGS	VGGHEPGEPR	600
600	GIKAGYGTGN	CFPEEEKCFC	EPEDIQDPLC	DELCRTVIAA	AVLFSFIVSV	LLSAFCIHCV	660
661	HKFAHKPPIS	SAEMTFRRPA	QAFPVSYS	GARRPSLDSM	ENQVSVDAFK	ILEDPKWEFP	720
721	RKNLVLGKTL	GEGEFGKVVK	ATAFHLLKGRA	GYTTVAVKML	KENASPSSELR	DLLSEFNVLK	780
781	QVNHPhVIKL	YGACSQDGPL	LLIVEYAKYG	SLRGLFRESR	KVGPYLGSG	GSRNSSSLDH	840
841	PDERALTMGD	LISFAWQISQ	GMQYLAEMKL	VHRDLAARNI	LVAEGRMKI	SDFGLSRDVY	900
901	EEDSYVKRSQ	GRIPVKWMAI	ESLFDHIYTT	QSDVWSFGVL	LWEIVTLGNG	PYPGIPPERL	960
961	FNLLKTGHRM	ERPDCSEEM	YRLMLQCWKQ	EPDKRPVFAD	ISKDLEKMMV	KRRDYDLAA	1020
1021	STPSDSLID	DGLSEETPL	VDCNNAPLPR	ALPSTWIENK	LYGMSDPNWP	GESPVPLTRA	1080
1081	DGTNTGFP	PNSVYANWM	LSPSAAKLMD	TFDS			1140

blue: RET sequence expressed in recombinant protein   Red: variant in recombinant protein

<sup>1</sup>NCBI/Protein accession number NP\_066124.1