

RYK Protein, Human (HEK293, Fc)

Cat. No.:	HY-P73672
Synonyms:	JTK5; JTK5A; RYK receptor-like tyrosine kinase; Ryk; RYK1
Species:	Human
Source:	HEK293
Accession:	P34925/NP_002949.2 (P26-R227)
Gene ID:	6259
Molecular Weight:	Approximately 49.1 kDa

PROPERTIES

AA Sequence	<pre> P P P L L L L L A L L P L L P A P G A A A A P A P R P P E L Q S A S A G P S V S L Y L S E D E V R R L I G L D A E L Y Y V R N D L I S H Y A L S F S L L V P S E T N F L H F T W H A K S K V E Y K L G F Q V D N V L A M D M P Q V N I S V Q G E V P R T L S V F R V E L S C T G K V D S E V M I L M Q L N L T V N S S K N F T V L N F K R R K M C Y K K L E E V K T S A L D K N T S R T I Y D P V H A A P T T S T R </pre>
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Human RYK, at 2µg/mL (100 µL/well) can bind Wnt3a. The KD for this effect is 5.675 nM.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	RYK Protein appears to function as a potential coreceptor, collaborating with FZD8, for Wnt proteins like WNT1, WNT3, WNT3A, and WNT5A. Its involvement spans critical processes such as neuron differentiation, axon guidance, corpus callosum establishment, and neurite outgrowth, emphasizing its significance in neural development. Upon stimulation by
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WNT3, the receptor undergoes C-terminal cleavage in its transmembrane region, facilitating the translocation of the C-terminal intracellular product from the cytoplasm to the nucleus. This translocated product assumes a crucial role in mediating neuronal development. The multifaceted engagement of RYK in Wnt signaling pathways underscores its potential as a key player in orchestrating intricate cellular processes integral to neural differentiation and growth. Further exploration of RYK's functions and regulatory mechanisms may provide deeper insights into its specific contributions to neuronal development.

Caution: Product has not been fully validated for medical applications. For research use only.

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