FITC-Labeled HER2/CD340 Protein, Human (630a.a, HEK293, Fc)

Cat. No.:	HY-P701268
Synonyms:	ERBB2; CD340; HER-2; neu; HER2; MLN19; NEU; NGL; TKR1
Species:	Human
Source:	HEK293
Accession:	P04626 (T23-T652)
Gene ID:	2064
Molecular Weight:	115-140 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from 0.22 μm filtered solution of PBS, pH7.4 with trehalose as protectant.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 1 year, protect from light. 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	HER2/CD340 Protein, a dynamic protein tyrosine kinase, stands as a pivotal component within diverse cell surface receptor complexes, requiring a coreceptor for efficient ligand binding. Crucially, it plays an indispensable role as part of the neuregulin-receptor complex, with GP30 identified as a potential ligand for this receptor. Beyond its receptor functions, HER2/CD340 Protein intricately regulates the outgrowth and stabilization of peripheral microtubules (MTs). Upon activation, the MEMO1-RHOA-DIAPH1 signaling pathway, initiated by ERBB2 activation, orchestrates the phosphorylation and subsequent inhibition of GSK3B at the cell membrane. This strategic inhibition prevents the phosphorylation of APC and CLASP2, facilitating their association with the cell membrane. Notably, membrane-bound APC enables the localization of MACF1 to the cell membrane, a prerequisite for microtubule capture and stabilization. Within the nucleus, HER2/CD340 Protein is actively involved in transcriptional regulation, associating with the 5'-TCAAATTC-3' sequence in the PTGS2/COX-2 promoter to activate transcription. Furthermore, its engagement in the transcription of rRNA genes by RNA Pol I enhances protein synthesis, contributing to overall cell growth. The multifaceted activities of HER2/CD340 Protein underscore its central role in orchestrating diverse cellular processes, ranging from receptor signaling to microtubule dynamics and transcriptional regulation.

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

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