

HER2/CD340 Protein, Mouse (HEK293, N-His)

Cat. No.:	HY-P73929A
Synonyms:	Receptor tyrosine-protein kinase erbB-2; MLN 19; CD340; ERBB2; HER2; NEU; NGL
Species:	Mouse
Source:	HEK293
Accession:	P70424 (T23-T653)
Gene ID:	13866
Molecular Weight:	80-100 kDa

PROPERTIES

AA Sequence

TQVCTGTD MK	LRLPASPETH	LDMLRHLYQG	CQVVQGNLEL
TYLPANASLS	FLQDIQEVQG	YMLIAHNRVK	HVPLQRLRIV
RGTQLFEDKY	ALAVLDNRDP	LDNVTTAAPG	RTPEGLRELQ
LRSLTEILKG	GVLIRGNPQL	CYQDMVLWKD	VLRKNNQLAP
VDMDTNRSRA	CPPCAPTCKD	NHCWGESPED	CQILTGTICT
SGCARCKGRL	PTDCCHEQCA	AGCTGPKHSD	CLACLHFNHS
GICELHCPAL	ITYNTDTFES	MLNPEGRYTF	GASCVTTCPY
NYLSTEVGSC	TLVCPPNNQE	VTAEDGTQRC	EKCSKPCAGV
CYGLGMEHLR	GARAITSNDI	QEFAGCKKIF	GSLAFLPESF
DGNPSSGVAP	LKPEHLQVFE	TLEEITGYLY	ISAWPESFQD
LSVFQNL RVI	RGRILHDGAY	SLTLQGLGIH	SLGLRSLREL
GSGLALIH RN	THLCFVNTVP	WDQLFRNPHQ	ALLHSGNRPE
EACGLEGLVC	NSLCARGHCW	GPGPTQCVNC	SQFLRGQECV
E ECRVWKGLP	REYVRGKHCL	PCHPECQPQN	SSETCYGSEA
DQCEACAHYK	DSSSCV ARCP	SGVKPDL SYM	PIWKYPDEEG
ICQP CPINCT	HSCVDLDERG	CPAEQRASPV	T

Biological Activity Immobilized Mouse Her2, His Tag at 0.5 µg/mL (100 µl/well) on the plate. Dose response curve for Anti-HER2 Antibody, Rabbit IgG Tag with the EC₅₀ of 33.9 ng/mL determined by ELISA.

Appearance Lyophilized powder

Formulation Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

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 ddH₂O.

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**

HER2/CD340 protein, a multifaceted protein tyrosine kinase, serves as an essential component within various cell surface receptor complexes, requiring a coreceptor for ligand binding. Integral to neuregulin-receptor complexes, it collaborates with neuregulins, and GP30 emerges as a potential ligand for this receptor. Beyond its receptor roles, HER2/CD340 plays a pivotal role in regulating the outgrowth and stabilization of peripheral microtubules (MTs). Upon activation, the MEMO1-RHOA-DIAPH1 signaling pathway, triggered by ERBB2 activation, leads to GSK3B phosphorylation and subsequent inhibition at the cell membrane. This orchestrated inhibition prevents the phosphorylation of APC and CLASP2, facilitating their association with the cell membrane. The membrane-bound APC, in turn, facilitates the localization of MACF1 to the cell membrane, a critical step for microtubule capture and stabilization. Inside the nucleus, HER2/CD340 is involved in transcriptional regulation, associating with the 5'-TCAAATTC-3' sequence in the PTGS2/COX-2 promoter and activating its transcription. Additionally, it participates in the transcription of rRNA genes by RNA Pol I, enhancing protein synthesis and promoting cell growth. The multifaceted functions of HER2/CD340 underscore its central role in diverse cellular processes, 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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