



Mouse Anti-Human HER2 (neu) Monoclonal antibody, clone 7.16.4 (CABT-L4512)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview

The 7.16.4 monoclonal antibody reacts with human and rat HER2 (human epidermal growth factor receptor 2) also known as neu peptide, CD340, ErbB-2, and p185. HER2 is a 185 kDa transmembrane, receptor-like glycoprotein with intrinsic tyrosine kinase activity that is part of several cell surface receptor complexes. HER2 lacks an identified ligand however, the kinase can be activated in the absence of a ligand when overexpressed. HER2 is a proto-oncoprotein that is commonly overexpressed on a variety of different tumors. Approximately 40% of human breast cancers overexpress HER2. HER2 overexpression is associated with poorer overall survival rates, shorter times to disease progression, and increased resistance to chemotherapy. Because of these clinical characteristics anti-HER2 monoclonal antibody therapy is now a standard for the treatment of advanced breast cancers that overexpress HER2. The 7.16.4 antibody has been shown to inhibit the growth of HER2-overexpressing tumors both in vitro and in vivo.

Target	Human/Rat HER2 (neu)
Immunogen	neu-transfected NIH 3T3 cells
Isotype	IgG2a, κ
Source/Host	Mouse
Species Reactivity	Human, Rat
Clone	7.16.4
Purification	Protein G purified. Purity>95%. Determined by SDS-PAGE
Conjugate	Functional Grade

Applications	in vivo HER2/neu inhibition, in vitro HER2/neu inhibition, IP, IF, FC
Molecular Weight	150 kDa
Format	0.2 µM filtered liquid. Purified from tissue culture supernatant in an animal free facility
Concentration	Lot specific
Size	1 mg, 5 mg
Buffer	PBS, pH 7.0. Contains no stabilizers or preservatives. [low endotoxin azide-free] Endotoxin level: <2EU/mg (<0.002EU/µg). Determined by LAL gel clotting assay Related dilution buffer: CABT-LB04
Preservative	None
Storage	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
Ship	Wet ice

BACKGROUND

Introduction	This is an antibody fragment consisting of a single monomeric variable antibody domain directed to human ErbB2. Nanobody, with a molecular weight of only 12–15 kDa, is able to bind selectively to a specific antigen like a whole antibody.
Keywords	ERBB2;v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian);NGL, v erb b2 avian erythroblastic leukemia viral oncogene homolog 2 (neuro/glioblastoma derived oncogene homolog);receptor tyrosine-protein kinase erbB-2;CD340;HER 2;HER2;NEU;herstatin;p185erbB2

GENE INFORMATION

Official Symbol	v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian)
Synonyms	ERBB2; v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian); NGL, v erb b2 avian erythroblastic leukemia viral oncogene homolog 2 (neuro/glioblastoma derived oncogene homolog); receptor tyrosine-protein kinase erbB-2; CD340; HER 2; HER2; NEU; herstatin; p185erbB2
References	Park, S., et al. (2010). "The therapeutic effect of anti-HER2/neu antibody depends on both innate and adaptive immunity." Cancer Cell 18(2): 160-170. PubMed;