

Product datasheet for TA420145

CYBB Mouse Monoclonal Antibody [Clone ID: NL7]

Product data:

Product Type:	Primary Antibodies
Clone Name:	NL7
Applications:	ELISA, FC, IF, IHC, WB
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Cytochrome B245 solubilized in octyl-beta-glucopyranoside.
Specificity:	CYTOCHROME B245
Formulation:	Phosphate buffered saline. containing 0.09% Sodium Azide (NaN ₃). Label: ALEXA FLUOR [®] 488,ALEXA FLUOR [®] 647,Biotin,FITC,Purified State: Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant. Purified IgG - liquid
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	+4°C, -20°C if preferred
Stability:	Shelf life: one year from despatch.
Gene Name:	cytochrome b-245 beta chain
Database Link:	P04839



Background:

Mouse anti Human Cytochrome B245 Heavy Chain antibody, clone NL7 recognizes the heavy chain of cytochrome B245, also known as gp91phox or NOX2, a subunit of the nicotinamide adenine dinucleotide phosphate-oxidase (NADPH oxidase). NADPH oxidase is a membrane-bound enzyme complex in neutrophils that produces the superoxide anion (O_2^-) by transferring single electrons from NADPH inside the cell across the membrane and coupling them to molecular oxygen. Superoxide is used for the destruction of pathogens. Individuals with defects in NADPH oxidase suffer from chronic granulomatous disease, characterised by severe recurrent infections. The heavy chain (gp91phox), along with the light chain (p22phox) form cytochrome B245 (also known as flavocytochrome b, or Cyt b), which is always membrane-resident. Upon the appropriate stimulus, other components of NADPH oxidase (p47phox, p40phox, p67phox and Rac2) rapidly translocate from the cytosol to the cell membrane to form the complete enzyme complex. Cytochrome B245 appears to serve as a scaffold for the assembly of the other cytosolic units of the oxidase and to provide a transmembrane pathway for electrons. Mouse anti Human Cytochrome B245 Heavy Chain antibody, clone NL7 binds amino acids 498-506 (EKDVITGLK), a cytosolic epitope on gp91phox not accessible on intact neutrophils. It recognizes the native as well as the denatured form of the protein. Clone NL7 has an inhibitory effect on NADPH oxidase activation. Research indicates that this inhibitory effect is exerted during the initial stages of oxidase activation. The antibody does not interfere with the translocation of the cytosolic subunits of NADPH oxidase to the cell membrane.

Synonyms:

gp91phox