

## Product datasheet for TA420146

### CYBA Mouse Monoclonal Antibody [Clone ID: CS9]

#### Product data:

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	CS9
<b>Applications:</b>	ELISA, FC, IHC, IP, WB
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	Cytochrome B245 solubilised in octyl-beta-glucopyranoside.
<b>Specificity:</b>	CYTOCHROME B245
<b>Formulation:</b>	Phosphate buffered saline. containing 0.09% Sodium Azide (NaN <sub>3</sub> ). <b>Label:</b> ALEXA FLUOR <sup>®</sup> 488,ALEXA FLUOR <sup>®</sup> 647,Biotin,FITC,Purified <b>State:</b> Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant. Purified IgG - liquid
<b>Concentration:</b>	lot specific
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	+4°C, -20°C if preferred
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	cytochrome b-245 alpha chain
<b>Database Link:</b>	<a href="#">P13498</a>



**Background:**

Mouse anti Human Cytochrome B245 Light Chain antibody, clone CS9 recognizes the light chain of cytochrome B245, also known as p22phox, 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 light chain (p22phox), along with the heavy chain (gp91phox) 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. The core region of the CS9 epitope is amino acids 165 - 169 (KKPSE), a cytosolic epitope on p22phox not accessible on intact neutrophils. Mouse anti Human Cytochrome B245 Light Chain antibody, clone CS9 also has an inhibitory effect on NADPH oxidase activation.

**Synonyms:**

p22phox