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Polyclonal Anti-CYBB Antibody

Catalog Number: PA1667

Description

Gene Name	cytochrome b-245, beta polypeptide
Recommended Protein Name	Cytochrome b-245 heavy chain
Lot No.	0161212c026731
Size	100μg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	**Reacts with:** human, rat **Predicted to work with**: mouse
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human CYBB(442-459aa YWLCRDTHAFEWFADLLQ), identical to the related rat and mouse sequences.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg Thimerosal, 0.05mg NaN_3.

Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5μg/ml	Hu, Rat	Ms	-
Immunohistochemistry (Paraffin-embedded Section)	0.5-1μg/ml	Hu, Rat	Ms	By Heat

Tested Species: In-house tested species with positive results.

Predicted Species: Species predicted to be fit for the product based on sequence similarities.

By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500μg/ml.

Storage: At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for a longer time.
Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P).

Background

NOX2(NADPH OXIDASE 2), also called CYBB(CYTOCHROME b(-245), BETA SUBUNIT), p91-PHOX or GP91-1, is a human gene encoding a glycoprotein.NOX2 is an essential component of phagocytic NADPH-oxidase, a membrane-bound enzyme complex that generates large quantities of microbicidal superoxide and other oxidants upon activation. It is mapped on Xp11.4. NOX2 is a heterodimer composed of an alpha chain of relative molecular mass 23 kD and a beta chain of 76 to 82 kD. NOX2 assembled on DC phagosomes in a gp91-phox subunit-dependent manner, and that reactive oxygen species were produced in a more sustained manner in immature DC phagosomes than in macrophage phagosomes .As a major player in innate immune responses in neutrophils, NOX2 is also involved in adaptive immunity through its activity in DCs. In heart cells, physiologic stretch rapidly activates reduced-form NOX2 to produce reactive oxygen species (ROS) in a process dependent on microtubules (X-ROS signaling).

Reference

1. Bionda, C., Li, X. J., van Bruggen, R., Eppink, M., Roos, D., Morel, F., Stasia, M.-J. Functional analysis of two-amino acid substitutions in gp91phox in a patient with X-linked flavocytochrome b(558)-positive chronic granulomatous disease by means of transgenic PLB-985 cells. Hum. Genet. 115: 418-427, 2004.
2. Bolscher, B. G. J. M., de Boer, M., de Klein, A., Weening, R. S., Roos, D. Point mutations in the beta-subunit of cytochrome b(558) leading to X-linked chronic granulomatous disease. Blood 77: 2482-2487, 1991.
3. "Entrez Gene: CYBB cytochrome b-245, beta polypeptide (chronic granulomatous disease)".