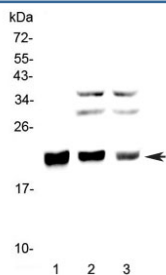


CBFB Antibody / Core-binding factor subunit beta (RQ4271)

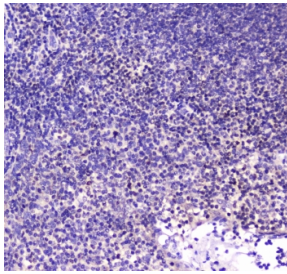
Catalog No.	Formulation	Size
RQ4271	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

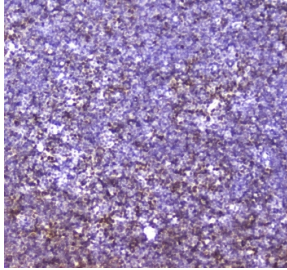
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	Q13951
Localization	Nucleus
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml Immunofluorescence (FFPE) : 2-4ug/ml Flow Cytometry : 1-3ug/10 ⁶ cells Direct ELISA : 0.1-0.5ug/ml
Limitations	This CBFB antibody is available for research use only.



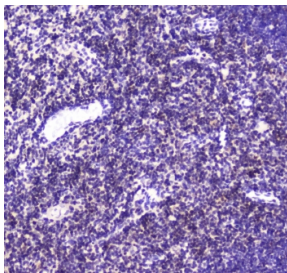
Western blot testing of 1) human SW620, 2) rat thymus and 3) mouse thymus lysate with CBFB antibody at 0.5ug/ml. Predicted molecular weight: ~22 kDa.



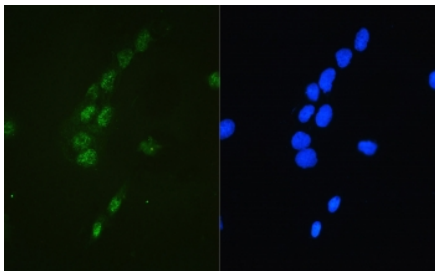
IHC testing of FFPE human tonsil tissue with CBFB antibody at 1ug/ml. Required HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



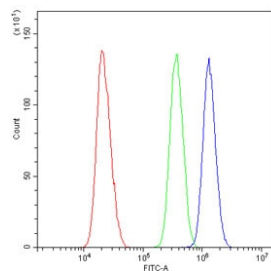
IHC testing of FFPE mouse thymus tissue with CBFB antibody at 1ug/ml. Required HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



IHC testing of FFPE rat thymus tissue with CBFB antibody at 1ug/ml. Required HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



Immunofluorescent staining of FFPE human A431 cells with CBFB antibody (green) at 2ug/ml and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Flow cytometry testing of human U-2 OS cells with CBFB antibody at 1ug/10⁶ cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= CBFB antibody.

Description

Core-binding factor subunit beta is a protein that in humans is encoded by the CBFB gene. The protein encoded by this gene is the beta subunit of a heterodimeric core-binding transcription factor belonging to the PEBP2/CBF transcription factor family which master-regulates a host of genes specific to hematopoiesis (e.g., RUNX1) and osteogenesis (e.g., RUNX2). The beta subunit is a non-DNA binding regulatory subunit; it allosterically enhances DNA binding by alpha subunit as the complex binds to the core site of various enhancers and promoters, including murine leukemia virus, polyomavirus enhancer, T-cell receptor enhancers and GM-CSF promoters. Alternative splicing generates two mRNA variants, each encoding a distinct carboxyl terminus. In some cases, a pericentric inversion of chromosome 16 [inv(16)(p13q22)] produces a chimeric transcript consisting of the N terminus of core-binding factor beta in a fusion with

the C-terminal portion of the smooth muscle myosin heavy chain 11. This chromosomal rearrangement is associated with acute myeloid leukemia of the M4Eo subtype. Two transcript variants encoding different isoforms have been found for this gene.

Application Notes

Optimal dilution of the CBFB antibody should be determined by the researcher.

Immunogen

A recombinant human protein corresponding to amino acids M1-P182 was used as the immunogen for the CBFB antibody.

Storage

After reconstitution, the CBFB antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.