



Anti-CD80 monoclonal antibody, clone MEM-233 [FITC] (CABT-46701MH)

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

PRODUCT INFORMATION

Product Overview

Mouse anti Human CD80 antibody, clone MEM-233 recognizes human CD80, also known as B7-1, a ~60kDa type 1 trans-membrane protein expressed of macrophages, dendritic cells and activated B-cells. CD80 is a member of the immunoglobulin superfamily having an extracellular domain bearing both a single Ig-v-like domain, a single Ig-c-like domain, a transmembrane sequence and a short cytoplasmic domain. Although the predicted molecular weight for human CD80 is ~33kDa, the presence of multiple potential N-glycosylation sites results in a migration corresponding to ~60kDa. Human CD80 along with CD86 act as co-stimulatory molecules and are both ligands for CD28 and CTLA-4 involved in T cell activation and proliferation. Although CD80 binds to the same receptors as CD86 it displays quite different characteristics in its avidity and binding kinetics. Site mutagenesis studies indicate residues in both the Ig-v-like and Ig-c-like domains of CD80 are crucial for the interaction with it's receptors CTLA-4 and CD28. Mouse anti human CD80 antibody, clone MEM-233 binds to residues within the Ig-v-like domain of human CD80 as shown by domain switching studies. Functional studies using Mouse anti Human CD80, clone MEM-233 in combination with Mouse anti Human CD86, clone Bu63 suggest that clone MEM-233 is able to block binding of human CD80 with its cognate ligands CD28 and CTLA-4. Flow Cytometry Use 10ul of the suggested working dilution to label 106 cells or 100ul whole blood.

Specificity	CD80
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human
Clone	MEM-233
Conjugate	FITC

Applications	FC
Format	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid
Size	100 µg
Preservative	See individual product datasheet
Storage	in frost free freezers is not recommended. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

GENE INFORMATION

Gene Name	CD80 CD80 molecule [Homo sapiens (human)]
Official Symbol	CD80
Synonyms	CD80; CD80 molecule; B7; BB1; B7-1; B7.1; LAB7; CD28LG; CD28LG1; T-lymphocyte activation antigen CD80; activation B7-1 antigen; costimulatory factor CD80; CTLA-4 counter-receptor B7.1; B-lymphocyte activation antigen B7; costimulatory molecule variant IgV
Entrez Gene ID	941
Protein Refseq	NP_005182
UniProt ID	P33681
Chromosome Location	3q13.3-q21
Pathway	Adaptive Immune System; Allograft Rejection; Allograft rejection; Autoimmune thyroid disease; CD28 co-stimulation; CD28 dependent PI3K/Akt signaling; CD28 dependent Vav1 pathway; CTLA4 inhibitory signaling;
Function	coreceptor activity; protein binding;