



Rat Anti-Mouse TLR2 monoclonal antibody, clone 6C2 (CABT-47503RM)

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

PRODUCT INFORMATION

Specificity	This monoclonal antibody reacts with mouse Toll-like receptor 2 (TLR2).
Isotype	IgG2b, κ
Source/Host	Rat
Species Reactivity	Human, Mouse
Clone	6C2
Purification	Affinity chromatography Purity: Greater than 90%, as determined by SDS-PAGE.
Conjugate	Functional Grade
Applications	IHC, ICC/IF, FC, Neut, FuncS, Ctrl Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded
Format	Liquid, Purified
Concentration	Lot specific
Size	100 µg, 200 µg
Buffer	PBS only. Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.
Storage	4° C

BACKGROUND

Introduction

TLR2 is a member of the Toll-like receptor (TLR) family which play a fundamental role in pathogen recognition and activation of innate immunity. TLR proteins act through adaptor molecules such as MyD88 and TIRAP to activate various kinases and transcription factors such as Protein Kinase C (PKC) alpha/beta and NF-kappa-B. TLR2 can form heterodimers with either TLR1 or TLR6, and as a heterodimer, can recognize a variety of bacterial and mycoplasma lipoproteins respectively. TLRs are highly conserved from Drosophila to humans and share structural and functional similarities. The various TLRs exhibit different patterns of expression. TLR2 is expressed most abundantly in peripheral blood leukocytes, and mediates host response to Gram-positive bacteria and yeast via stimulation of NF-kappaB. TLR2 aids in the recognition of pathogen-associated molecular patterns (PAMPs) that are expressed on infectious agents, and mediate the production of cytokines necessary for the development of effective immunity. Ten human homologs of TLRs (TLR1-10) have been described. TLR2 is expressed in human cells such as tonsils, microglia, lymph nodes, and appendices, activated B-cells in germinal centers. CD14+ monocytes express the highest level of TLR2 followed by CD15+ granulocytes, CD19+ B-cells, and CD3+ T-cells. The expression of TLR2 on different cell types are regulated by different immune response modifiers. For example, LPS, GM-CSF, IL-1, and IL-10 up regulates TLR2 whereas IL-4, IFN-gamma, and TNF down regulate TLR2 expression in monocytes.
