

CoraLite® Plus 488-conjugated XRCC5/Ku80 Monoclonal antibody

Catalog Number: CL488-66546

Basic Information

Catalog Number: CL488-66546	GenBank Accession Number: BC019027	Purification Method: Protein G purification
Concentration: 1000 ug/ml	GeneID (NCBI): 7520	CloneNo.: 2G5E7
Source: Mouse	UNIPROT ID: P13010	Recommended Dilutions: IF/ICC: 1:50-1:500
Isotype: IgG1	Full Name: X-ray repair complementing defective repair in Chinese hamster cells 5 (double-strand-break rejoining)	FC (Intra): 0.40 ug per 10 ⁶ cells in a 100 µl suspension
Immunogen Catalog Number: AG9512	Calculated MW: 732 aa, 83 kDa	Excitation/Emission maxima wavelengths: 493 nm / 522 nm
	Observed MW: 80-83 kDa	

Applications

Tested Applications: IF/ICC, FC (Intra)	Positive Controls:
Species Specificity: human, mouse, rat	IF/ICC : HeLa cells, HepG2 cells
	FC (Intra) : HeLa cells,

Background Information

There are at least two pathways for eukaryotes to repair DNA double-strand breaks: homologous recombination and nonhomologous end joining (NHEJ). The core NHEJ machinery includes XRCC4, DNA ligase IV and the DNA-dependent protein kinase complex, which consists of the DNA end-binding XRCC5/XRCC6 heterodimer and the catalytic subunit PRKDC. The heterodimer of XRCC5/XRCC6 enhanced the affinity of the catalytic subunit PRKDC to DNA by 100-fold. Once the XRCC5/6 dimer association with NAA15, it can bind to the osteocalcin promoter and activate osteocalcin expression. The XRCC5/6 dimer acts as a negative regulator of transcription when together with APEX1. Some published papers indicated that the MW of XRCC5 is 86kDa, while more papers suggested that XRCC5 is a 80kDa protein, as it was firstly introduced in publication. Thus, Ku80 and Ku86 are the same protein.

Storage

Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% glycerol, 0.05% Proclin300, 0.5% BSA, pH7.3
Aliquoting is unnecessary for -20°C storage

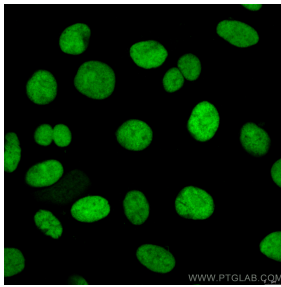
For technical support and original validation data for this product please contact:

T: 4006900926

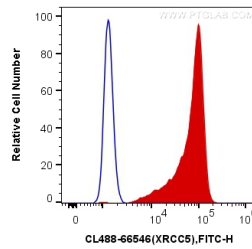
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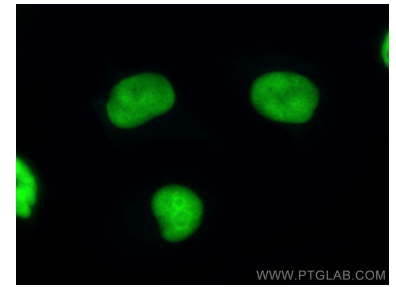
Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using CL488-66546 (XRCC5 antibody) at dilution of 1:100.



1X10⁶ HeLa cells were intracellularly stained with 0.4 ug CoraLite® Plus 488 Anti-Human XRCC5 (CL488-66546, Clone:2G5E7) (red), or 0.4 ug Mouse IgG1 Isotype Control (CL488-66360, Clone: T1F8D3F10) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using CoraLite® Plus 488 XRCC5 antibody (CL488-66546, Clone: 2G5E7) at dilution of 1:200.