For Research Use Only

CoraLite® Plus 488-conjugated XRCC5/Ku80 Monoclonal antibody

Catalog Number:CL488-66546

proteintech®
Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
CL488-66546

Size:
100ul , Concentration: 882 ug/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG9512

GenBank Accession Number:
BC019027

GeneID (NCBI):
7520

UNIPROT ID:
P13010

Full Name:
X-ray repair complementing defective repair in Chinese hamster cells 5 (double-strand-break rejoining)

Calculated MW:
732 aa, 83 kDa

Observed MW:
80-83 kDa

Purification Method:
Protein G purification

CloneNo.:
2G5E7

Recommended Dilutions:
IF/ICC 1:50-1:500

Excitation/Emission maxima wavelengths:
493 nm / 522 nm

Applications

Tested Applications:
IF/ICC, FC (Intra)

Species Specificity:
human, mouse, rat

Positive Controls:

IF/ICC : HeLa cells, HepG2 cells

Background Information

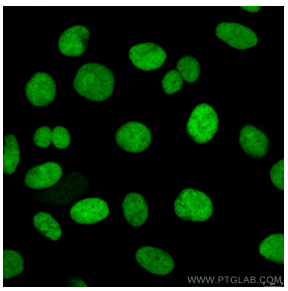
There are at least two pathways for eukaryotes to repair DNA double-strand breaks: homologous recombination and nonhomologous end joining(NHEJ). The core NHEJ machinery includes XRCC4, DNA ligase IV and the DNA-dependent protein kinase complex, which consists of the DNA end-binding XRCC5/XRCC6 heterodimer and the catalytic subunit PRKDC. The heterdimer of XRCC5/XRCC6 enhanced teh 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 publised papers indicated that the MW of XRCC5 is 86kDa, while more papers suggested that XRCC5 is a 80kDa protein, as it was firstly introducted in publication. Thus, Ku80 and Ku86 are the same protein.

Storage

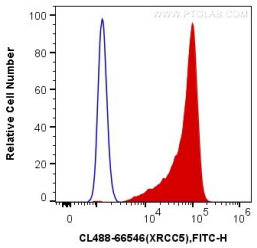
Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% glycerol, 0.05% Proclin300, 0.5% BSA
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

Selected Validation Data



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



1X10^6 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.