

CoraLite®594-conjugated XRCC5/Ku80 Monoclonal antibody

Catalog Number: CL594-66546

Basic Information

Catalog Number:

CL594-66546

Concentration:

1000 ug/ml

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

FC (Intra): 0.20 ug per 10⁶ cells in a 100 µl suspension

Excitation/Emission maximum wavelengths:

588 nm / 604 nm

Applications

Tested Applications:

IF/ICC, FC (Intra)

Species Specificity:

human

Positive Controls:

IF/ICC : HeLa 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

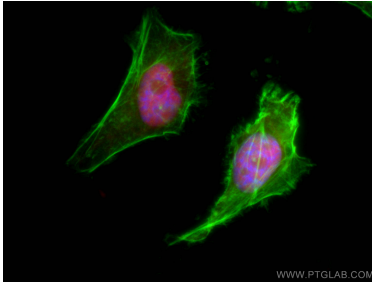
For technical support and original validation data for this product please contact:

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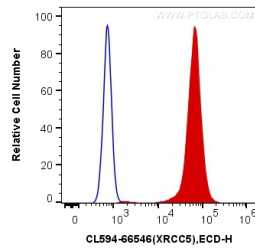
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Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using CoraLite®594-conjugated XRCC5 antibody (CL594-66546, Clone: 2G5E7) at dilution of 1:100.



1X10⁶ HeLa cells were intracellularly stained with 0.2 ug CoraLite®594 Anti-Human XRCC5 (CL594-66546, Clone:2G5E7) (red), or 0.2 ug Control Antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).