

For Research Use Only

CoraLite®594-conjugated XRCC5/Ku80 Monoclonal antibody

Catalog Number: CL594-66546



Basic Information

Catalog Number: CL594-66546	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)	Excitation/Emission maxima wavelengths: 588 nm / 604 nm
Immunogen Catalog Number: AG9512	Calculated MW: 732 aa, 83 kDa	
	Observed MW: 80-83 kDa	

Applications

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

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
Aliquoting is unnecessary for -20°C storage

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

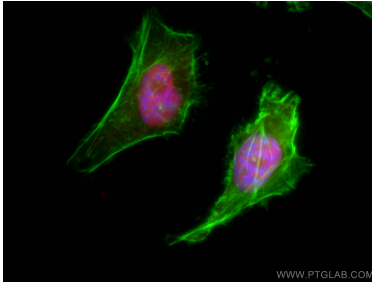
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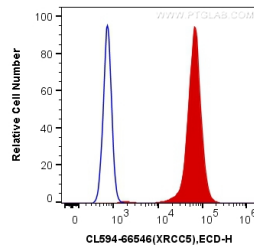
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Selected Validation Data



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).