

CoraLite®555-conjugated XRCC5 Monoclonal antibody

Catalog Number: **CL555-66546**

Basic Information

Catalog Number: CL555-66546	GenBank Accession Number: BC019027	Purification Method: Protein G purification
Size: 1000 µg/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: 557 nm / 570 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.
Storage Buffer:
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.
Aliquoting is unnecessary for -20°C storage

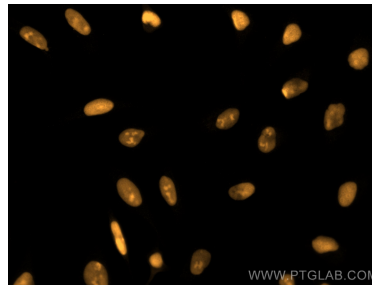
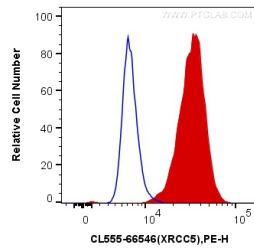
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Selected Validation Data



1×10^6 HeLa cells were intracellularly stained with 0.4 μ g CoraLite@555 Anti-Human XRCC5 (CL555-66546, Clone: 2G5E7) (red), or 0.4 μ g Control Antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).

Immunofluorescent analysis of (4% PFA) fixed HeLa cells using CoraLite@555 XRCC5 antibody (CL555-66546, Clone: 2G5E7) at dilution of 1:200.