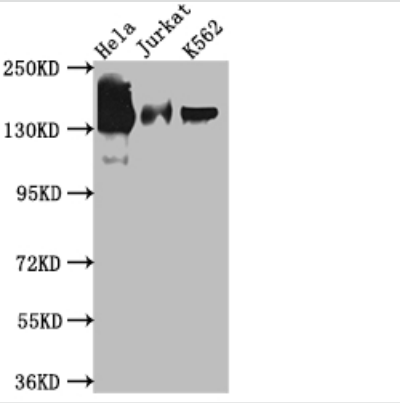
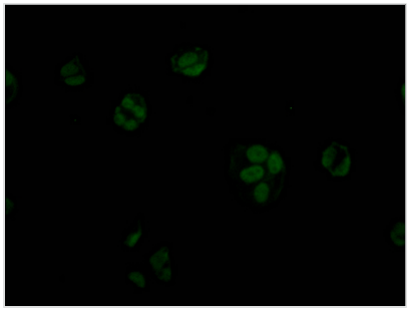
STAG2 Recombinant Monoclonal Antibody

Product Code	CSB-RA292183A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q8N3U4
Immunogen	A synthesized peptide derived from human SA2
Species Reactivity	Human
Tested Applications	ELISA, WB, IF; Recommended dilution: WB:1:500-1:5000, IF:1:20-1:200
Relevance	Component of cohesin complex, a complex required for the cohesion of sister chromatids after DNA replication. The cohesin complex apparently forms a large proteinaceous ring within which sister chromatids can be trapped. At anaphase, the complex is cleaved and dissociates from chromatin, allowing sister chromatids to segregate. The cohesin complex may also play a role in spindle pole assembly during mitosis.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling; Cell biology
Gene Names	STAG2
Clone No.	3H4

Image



Western Blot
Positive WB detected in: Hela whole cell lysate, Jurkat whole cell lysate, K562 whole cell lysate
All lanes: SA2 antibody at 1:1000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 142, 146 kDa
Observed band size: 142 kDa



Immunofluorescence staining of MCF7 Cells with CSB-RA292183A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

STAG2 encodes a subunit of the cohesin complex and is one of the most mutated genes in human cancer. STAG2 inactivation has been demonstrated to cause aneuploidy via sister chromatid cohesion, as well as increased DNA damage, which could facilitate further mutagenesis. STAG2 is required for the progression of DNA replication forks. STAG2 deficiency disrupts the interaction of cohesin with the replication machinery, resulting in replication fork stalling and collapse, as well as failure to develop SMC3 acetylation. As a result, STAG2 loss causes synthetic lethality with particular DNA repair genes as well as increased chemotherapeutic susceptibility.

CUSABIO cloned STAG2 antibody-coding genes into plasma vectors and then transfected these vector clones into mammalian cells using a lipid-based transfection reagent. Following transient expression, the recombinant antibodies against STAG2 were harvested and characterized. The recombinant STAG2 antibody was purified by Affinity-chromatography from the culture medium. It can be used to detect STAG2 protein from Human in the ELISA, WB, IF.