Data Sheet (Cat.No.TMAC-00801)

Anti-CDK7 Antibody (3Y405)

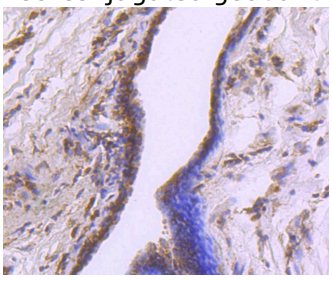
Product Details

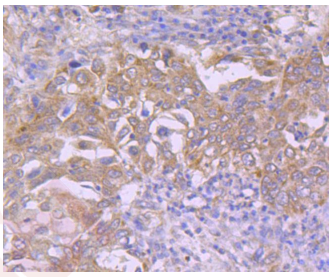
Ig Type:	IgG
Reactivity:	Human
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 39 kDa.
Clone:	3Y405
Purification:	ProA affinity purified

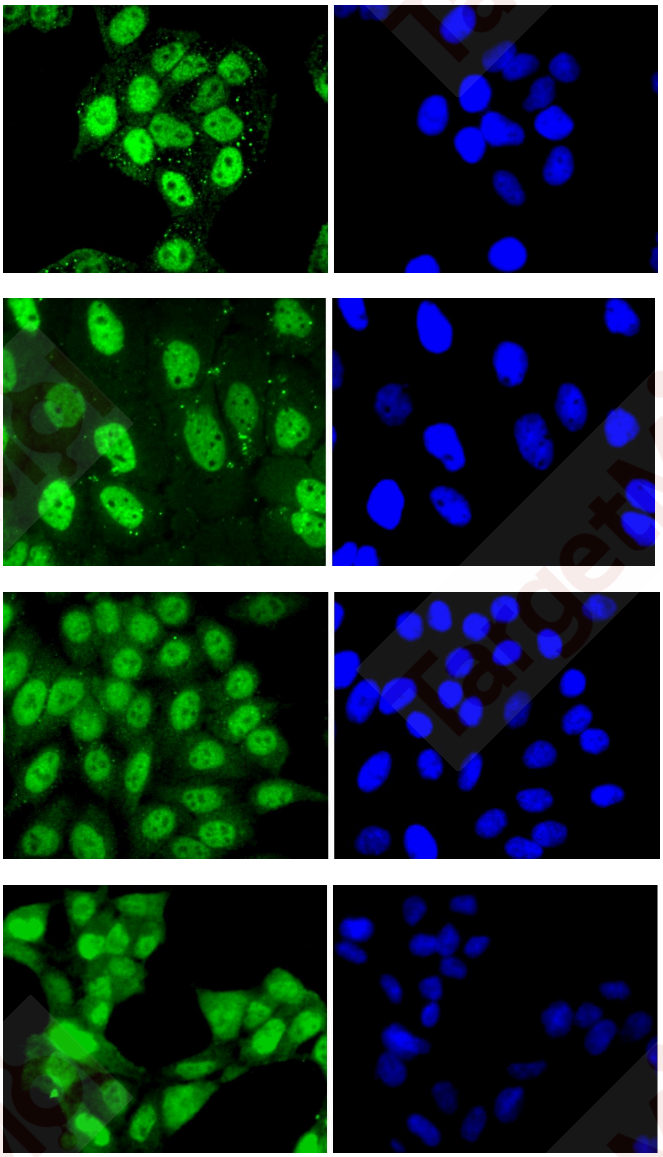
Applications

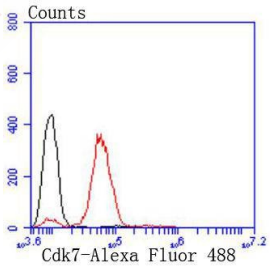
Verified Activity:

1. Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-Cdk7 antibody. Counter stained with hematoxylin.
2. Immunohistochemical analysis of paraffin-embedded human lung cancer tissue using anti-Cdk7 antibody. Counter stained with hematoxylin.
3. ICC staining Cdk7 in A431 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
4. ICC staining Cdk7 in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
5. ICC staining Cdk7 in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
6. ICC staining Cdk7 in 293 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
7. Flow cytometric analysis of A431 cells with Cdk7 antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.









Application: FCM,ICC/IF,IHC,WB

Recommended: WB: 1:1000; IHC: 1:50-200; ICC/IF: 1:100-500; FCM: 1:50-100

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein
Uniprot ID:	P50613
Synonyms:	CAK1;MO15;CDK7;TFIIH basal transcription factor complex kinase subunit;Cell division protein kinase 7;CAK;Serine/threonine-protein kinase 1;CDKN7;39 kDa protein kinase (p39 Mo15); STK1;CDK-activating kinase 1;Cyclin-dependent kinase 7

Research Background

Progression through the cell cycle requires activation of a series of enzymes designated cyclin dependent kinases (Cdks). The monomeric catalytic subunit Cdk2, a critical enzyme for initiation of cell cycle progression, is completely inactive. Partial activation is achieved by the binding of regulatory cyclins such as cyclin D1, while full activation requires additional phosphorylation at Thr 160. The enzyme responsible for the phosphorylation of Cdk2 on Thr 160 and also of Cdc2 p34 on Thr 161, designated Cdk-activating kinase (CAK), has been partially purified and shown to be comprised of a catalytic subunit and a regulatory subunit. The catalytic subunit, designated Cdk7, has been identified as the mammalian homolog of MO15, a protein kinase demonstrated in starfish and Xenopus. The regulatory subunit is a novel cyclin (cyclin H) and is required for activation of Cdk7. Like other Cdks, Cdk7 contains a conserved threonine residue required for full activity; mutation of this residue severely reduces CAK activity.