

Purified anti-Eg5-Phosphorylated (Thr927)

Catalog #/ 620501 / 50 μ l (5 Western blots)

Size: 620502 / 200 μ l (20 Western blots)

Clone: Poly6205

Isotype: Rabbit IgG

Immunogen: Modified peptide

Reactivity: Human, reacts with Thr927-phosphorylated hEg5

Preparation: The antibody was purified by antigen-affinity chromatography.

Formulation: This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 50% glycerol.

Storage: Upon receipt, store frozen at -20° C.

Applications

Applications: WB, IF

Application References: 1. Chou, H-Y. E., *et al.*, 2006. *J. Biol. Chem.* 281:15201.

Recommended Usage: Each lot of this antibody is quality control tested by Western blotting. Western blotting, suggested working dilution(s): Use 10 μ l per 5 ml antibody dilution buffer for each mini-gel. For immunofluorescence microscopy: Use a starting dilution of 1:100. It is recommended that the reagent be titrated for optimal performance for each application.

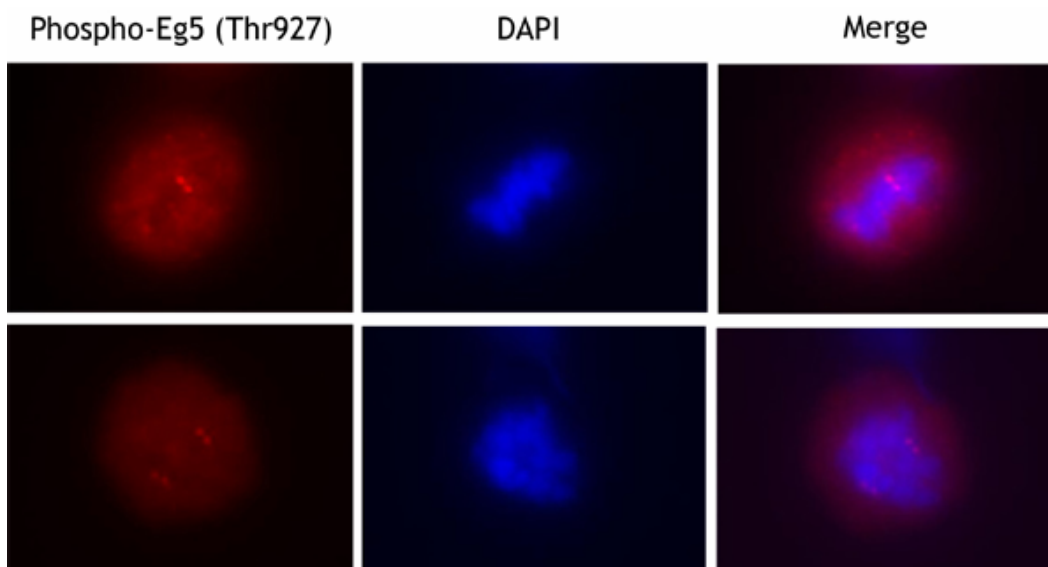


Figure 1. Overnight nocodazole treated HeLa cells stained with purified rabbit polyclonal antibody against Phospho-Eg5 (Thr927), followed by Rhodamine Red-X conjugated goat anti-rabbit IgG and DAPI. against Aurora A, followed by Rhodamine Red-X conjugated goat anti-rabbit IgG and DAPI

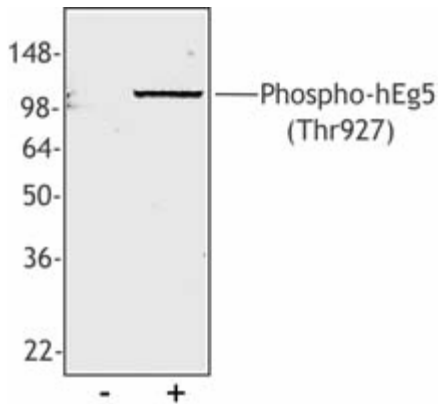


Figure 2. HeLa cells were treated with 300 μ M mimosine for 16 hrs, then placed in complete media (lane 1) or media containing 200 ng/ml nocodazole for an additional 18hrs. Cell extracts were resolved by electrophoresis, transferred to nitrocellulose, and probed with rabbit antibody against phosphorylated Eg5 (Thr927). Lane 1, Mimosine only treated HeLa cells; Lane 2, mimosine and nocodazole treated HeLa. Proteins were visualized using a donkey anti-rabbit secondary conjugated to HRP and a chemiluminescence detection system.

Antigen Information

Other Names: Kinesin-like protein KIF11, kinesin-related motor protein Eg5, kinesin-like spindle protein HKSP, thyroid receptor interacting protein 5 (TRIP5)

Structure: Kinesin-like protein family, BimC subfamily, kinesin motor catalytic, coiled-coil, Smc domains; 119 kD

Distribution: Centrosomes, spindle microtubules, intracellular bridge

Function: Motor protein required for establishing bipolar spindle

Regulation: Phosphorylation on Thr927 by Cdc2 allows association with spindle apparatus

Modification: Phosphorylation

Interaction: Thyroid hormone receptor in presence of thyroid hormone, Cdc2

Description: hEg5 (also known as kinesin-like protein KIF11, kinesin-related motor protein Eg5, kinesin-like spindle protein HKSP, and thyroid receptor interacting protein 5 (TRIP5)) is a 119 kD kinesin-like protein family, BimC subfamily. This protein is a catalytic kinesin motor with coiled-coil and Smc domains. hEg5 is localized at the centrosomes, spindle microtubules, and intracellular bridge. This motor protein is required for establishing the bipolar spindle. hEg5 is modified by phosphorylation on Thr927 by Cdc2 to allow association with the spindle apparatus. hEg5 has been shown to interact with the thyroid hormone receptor in presence of thyroid hormone and Cdc2. The Poly6205 antibody has been shown to react with phosphorylated human Eg5 (Thr927) by Western blot.

Antigen References:

1. Lee, J., *et al.*, 1995. *Mol. Endocrinol.* 9:243.
2. Blangy, A., *et al.*, 1995. *Cell* 83:1159.
3. Whitehead, C., *et al.*, 1998. *J. Cell Sci.* 111:2551.
4. DeBonis, S., *et al.*, 2003. *Biochemistry.* 42:338.