α/β-centractin (A-7): sc-376010

**BACKGROUND**

The dynactin complex is a macromolecular complex that consists of 10-11 distinct subunits. This complex is critical for the function of dynein, a molecular motor protein. Dynactin plays a role in ER to Golgi transport, spindle formation, chromosome movement, axon guidance, nuclear positioning and the centripetal movement of lysosomes and endosomes. Centractin is a subunit of the dynactin complex that exists in multiple isoforms. The α isoform, also known as actin-related protein 1 homolog A (Arp1) and previously referred to as centractin, is the most abundant isoform in the dynactin complex. The β isoform, also known as actin-related protein 1 homolog B, shares 90% identity with the α isoform. The two isoforms, α and β, are expressed at a ratio of 15:1 respectively. The backbone filament structure of the dynactin complex is composed of 9-11 subunits of α/β-centractin.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: ACTR1A (human) mapping to 10q24.32, ACTR1B (human) mapping to 1q11.2; Actr1a (mouse) mapping to 19 C3, Actr1b (mouse) mapping to 1 B.

**SOURCE**

α/β-centractin (A-7) is a mouse monoclonal antibody raised against amino acids 77-376 mapping at the C-terminus of α-centractin of human origin.

**PRODUCT**

Each vial contains 200 µg IgG κ kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

α/β-centractin (A-7) is available conjugated to agarose (sc-376010 AC), 500 µg/0.25 agarose in 1 ml, for IP; to HRP (sc-376010 HRP), 200 µg/ml, for WB, ICIP and ELISA; to either phycoerythrin (sc-376010 PE), fluorescein (sc-376010 FITC), Alexa Fluor® 488 (sc-376010 AF488), Alexa Fluor® 546 (sc-376010 AF546), Alexa Fluor® 594 (sc-376010 AF594) or Alexa Fluor® 647 (sc-376010 AF647), 200 µg/ml, for WB (RGB), IF, ICIP and FCM; and to either Alexa Fluor® 680 (sc-376010 AF680) or Alexa Fluor® 790 (sc-376010 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

α/β-centractin (A-7) is recommended for detection of α-centractin and β-centractin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

α/β-centractin (A-7) is also recommended for detection of α-centractin and β-centractin in additional species, including equine, canine, bovine and porcine.

Molecular Weight of α-centractin: 43 kDa.
Molecular Weight of β-centractin: 42 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, KNRK whole cell lysate: sc-2214 or Neuro-2A whole cell lysate: sc-364185.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

α/β-centractin (A-7): sc-376010. Western blot analysis of α/β-centractin expression in Caki-1 (A), KNRK (B), AMJ2-C8 (C), Neuro-2A (D) and EOC20 (E) whole cell lysates and human heart tissue extract (F).

α/β-centractin (A-7): sc-376010. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.