

# β-centractin (Y-22): sc-133452

## 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  $\alpha$  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  $\beta$  isoform, also known as Actin-related protein 1 homolog B, shares 90% identity with the  $\alpha$  isoform. The 2 isoforms,  $\alpha$  and  $\beta$ , are expressed at a ratio of 15:1 respectively. The backbone filament structure of the dynactin complex (important for the arrangement of other complex proteins) is composed of 9-11 subunits of  $\alpha/\beta$ -centractin.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: ACTR1B (human) mapping to 2q11.2; Actr1b (mouse) mapping to 1 B.

## SOURCE

$\beta$ -centractin (Y-22) is an affinity purified rabbit polyclonal antibody raised against synthetic  $\beta$ -centractin peptide of human origin.

## PRODUCT

Each vial contains 50  $\mu$ g IgG in 500  $\mu$ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## APPLICATIONS

$\beta$ -centractin (Y-22) is recommended for detection of  $\beta$ -centractin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for  $\beta$ -centractin siRNA (h): sc-105198,  $\beta$ -centractin siRNA (m): sc-142274,  $\beta$ -centractin shRNA Plasmid (h): sc-105198-SH,  $\beta$ -centractin shRNA Plasmid (m): sc-142274-SH,  $\beta$ -centractin shRNA (h) Lentiviral Particles: sc-105198-V and  $\beta$ -centractin shRNA (m) Lentiviral Particles: sc-142274-V.

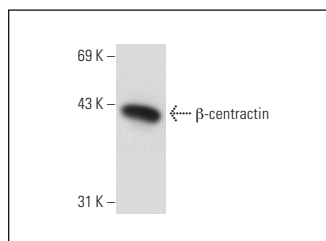
Molecular Weight of  $\beta$ -centractin: 42 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or Hep G2 cell lysate: sc-2227.

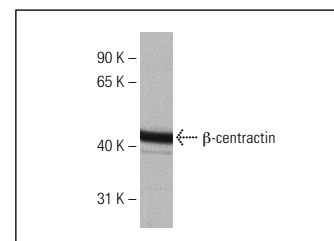
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



$\beta$ -centractin (Y-22): sc-133452. Western blot analysis of  $\beta$ -centractin expression in K-562 whole cell lysate.



$\beta$ -centractin (Y-22): sc-133452. Western blot analysis of  $\beta$ -centractin expression in Hep G2 whole cell lysate.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.