

# Arylsulfatase E (F-4): sc-393224

## BACKGROUND

Sulfatases hydrolyze sulfate esters from sulfated steroids, carbohydrates, proteoglycans and glycolipids. They are involved in hormone biosynthesis, modulation of cell signaling and degradation of macromolecules. Arylsulfatase E, also known as CDPX, CDPX1 or CDPXR, is a 589 amino acid Golgi apparatus protein expressed in the pancreas, liver and kidney. Belonging to the sulfatase family, Arylsulfatase E may be essential for the correct composition of cartilage and bone matrix during development. Inhibited by warfarin, Arylsulfatase E activity occurs under optimal pH and temperature. Defects in the gene encoding Arylsulfatase E are the cause of chondrodysplasia punctata X-linked recessive type 1 (CDPX1), which is characterized by aberrant bone mineralization, severe underdevelopment of nasal cartilage and distal phalangeal hypoplasia. Arylsulfatase E has no activity toward steroid sulfates.

## REFERENCES

1. Chen, N.T., et al. 1988. Potentiation of angiostatic steroids by a synthetic inhibitor of Arylsulfatase. *Lab. Invest.* 59: 453-459.
2. Parenti, G., et al. 1997. The sulfatase gene family. *Curr. Opin. Genet. Dev.* 7: 386-391.
3. Dahl, H.H., et al. 1999. Late diagnosis of maternal PKU in a family segregating an Arylsulfatase [corrected] E mutation causing symmetrical chondrodysplasia punctata. *Mol. Genet. Metab.* 68: 503-506.
4. Seidel, J., et al. 2001. Brachytelephalangic dwarfism due to the loss of ARSE and SHOX genes resulting from an X;Y translocation. *Clin. Genet.* 59: 115-121.

## CHROMOSOMAL LOCATION

Genetic locus: ARSE (human) mapping to Xp22.33.

## SOURCE

Arylsulfatase E (F-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 513-534 near the C-terminus of Arylsulfatase E of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Arylsulfatase E (F-4) is available conjugated to agarose (sc-393224 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393224 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393224 PE), fluorescein (sc-393224 FITC), Alexa Fluor® 488 (sc-393224 AF488), Alexa Fluor® 546 (sc-393224 AF546), Alexa Fluor® 594 (sc-393224 AF594) or Alexa Fluor® 647 (sc-393224 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393224 AF680) or Alexa Fluor® 790 (sc-393224 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393224 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

Arylsulfatase E (F-4) is recommended for detection of Arylsulfatase E of 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).

Suitable for use as control antibody for Arylsulfatase E siRNA (h): sc-91236, Arylsulfatase E shRNA Plasmid (h): sc-91236-SH and Arylsulfatase E shRNA (h) Lentiviral Particles: sc-91236-V.

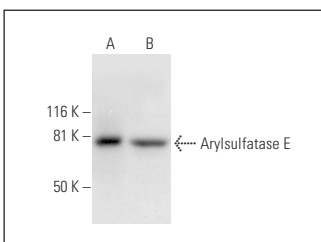
Molecular Weight of Arylsulfatase E: 66 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Arylsulfatase E (F-4): sc-393224. Western blot analysis of Arylsulfatase E expression in 293T (A) and HeLa (B) whole cell lysates.

## 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) for detailed protocols and support products.