

# Arylsulfatase G (S-15): sc-107436

## 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 G, also known as ARSG, is a 525 amino acid widely expressed endoplasmic reticulum protein belonging to the sulfatase family. Considered a novel arylsulfatase, Arylsulfatase G has activity toward pseudosubstrates including p-nitrocatechol sulfate and 4-methylumbelliferyl sulfate. Arylsulfatase G accumulates within lysosomes and as a glycoprotein it binds specifically to mannose 6-phosphate receptors. The murine homolog of Arylsulfatase G gene product shows 87% identity with human Arylsulfatase G. The gene encoding Arylsulfatase G is located on human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: ARSG (human) mapping to 17q24.2; Arsg (mouse) mapping to 11 E1.

## SOURCE

Arylsulfatase G (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Arylsulfatase G of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-107436 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Arylsulfatase G (S-15) is recommended for detection of Arylsulfatase G of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Arylsulfatase G (S-15) is also recommended for detection of Arylsulfatase G in additional species, including bovine.

Suitable for use as control antibody for Arylsulfatase G siRNA (h): sc-93683, Arylsulfatase G siRNA (m): sc-141283, Arylsulfatase G shRNA Plasmid (h): sc-93683-SH, Arylsulfatase G shRNA Plasmid (m): sc-141283-SH, Arylsulfatase G shRNA (h) Lentiviral Particles: sc-93683-V and Arylsulfatase G shRNA (m) Lentiviral Particles: sc-141283-V.

Molecular Weight of Arylsulfatase G precursor: 62 kDa.

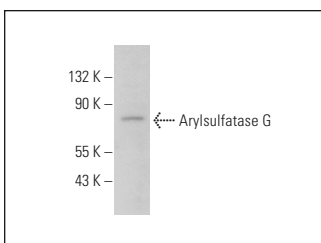
Molecular Weight of mature Arylsulfatase G: 70 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Arylsulfatase G (S-15): sc-107436. Western blot analysis of Arylsulfatase G expression in HEK293 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.