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## Product Data Sheet

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Product Name: ARSG Human

Cat. No.: GP21414

Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Arylsulfatase G; ASG; ARSG; KIAA1001; UNQ839/PRO1777.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MSGFLYPLV DFCISGKTRG QKPNFVIILA DDMGWGDLGA NWAETKDTAN LDKMASEGMR FVDFHAAAST CSPSRASLLT GRLGLRNGVT RNFAVTSVGG LPLNETTLAE VLQQAGYVTG IIGKWHLGHH GSYHPNFRGF DYYFGIPYSH DMGCTDTPGY NHPPCPACPQ GDGPSRNLQR DCYTDVALPL YENLNIVEQP VNLSSLAQKY AEKATQFIQR ASTSGRPFL YVALAHMHVP LPVTQLPAAP RGRSLYGAGL WEMDSLVGQI KDKVDHTVKE NTFLWFTGDN GPWAQKCELA GSVGPFTEFW QTRQGGSPAK QTTWEGGHRV PALAYWPGRV PVNVTSTALL SVLDIFPTVV ALAQASLPQG RRFDGVVDVSE VLFGRSQPGH RVLFPNSGA AGEFGALQTV RLERYKAFYI TGGARACDGS TGPELQHKFP LIFNLEDDTA EAVPLERGA EYQAVLPEVR KVLADVLQDI ANDNISSADY TQDPSVTPCC NPYQIACRCQ AA.		
Formulation	The ARSG solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.4M Urea and 10% glycerol.		

**Introduction**

Arylsulfatase G (ARSG) is a member of the sulfatase enzyme family. Sulfatases are enzymes which hydrolyze sulfate esters from sulfated steroids, carbohydrates, proteoglycans, and glycolipids. Sulfatases are involved in hormone biosynthesis, modulation of cell signaling, and degradation of macromolecules. The ARSG protein exhibits arylsulfatase activity at acidic pH, as is characteristic of lysosomal sulfatases. The Arylsulfatase G enzyme localizes in the lysosomes. ARSG is inhibited by phosphate, which forms a covalent bond with the active site 3-oxoalanine. Arylsulfatase G is widely expressed, having very low expression in the brain, lung, heart and skeletal muscle.

**Stability**

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

ARSG Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 532 amino acids (17-525) and having a molecular mass of 57kDa. ARSG is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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