

Sulfazyme™ PaS

recombinant aryl-sulfatase

Specifications and Guidelines



Recommended Hydrolysis Reaction Set-Up:

- Use supplied concentrated 10x Reaction Buffer. Consult the table for amounts.
- Add Reaction Buffer to Sample. Mix. Add Sulfazyme. Mix gently.
- DO NOT VORTEX.**
- Incubate between 30-37 °C for 30 minutes.

Component	Amount
Sample and water mix	100 µL
10x Reaction Buffer (1M Tris HCl, pH 8)	15 µL
Sulfazyme PaS (1 mg/mL, >2.5 U/mg)	50 µL

Content and Storage Guidelines:

Enzyme Solution:

Enzyme solution is stable at 2-8 °C for 24 months. Original enzyme solution is formulated for long-term storage. Diluting the enzyme will negatively impact its shelf life. Repeated freezing is not recommended, however, if the enzyme is to be used over a period greater than 6 months, then aliquoting and freezing once for storage is acceptable.

10x Reaction Buffer (1M Tris HCl pH 8.0):

10x Reaction Buffer is sterile filtered and is to be used with the enzyme solution to obtain optimal pH. The original solution is stable for 12 months from production date at 2-30 °C.

Product Sterility:

IMCS products undergo strict quality control to ensure product sterility. The product can become contaminated if mishandled. Follow aseptic technique to avoid contamination.

Sulfazyme Hydrolysis vs. other sulfatases¹:

Sulfated Compound (100 µM sulfated compound at 37 °C)	Sulfazyme™ PaS	Other Sulfatases				
	PaS	HpS	HrS	PvS	KpS	
p-nitrophenyl sulfate	7	7	6	5	3	2
estrone/estradiol-3-sulfate	7	7	5	3	2	0
tapentadol sulfate	6	no data	no data	no data	no data	no data
cortisol-21-sulfate	5	no data	no data	no data	no data	no data
nandrolone-17-β-sulfate	3	3	1	0	0	0
boldenone-17-β-sulfate	2	2	2	0	0	0
testosterone-17-β-sulfate	2	2	1	1	0	0

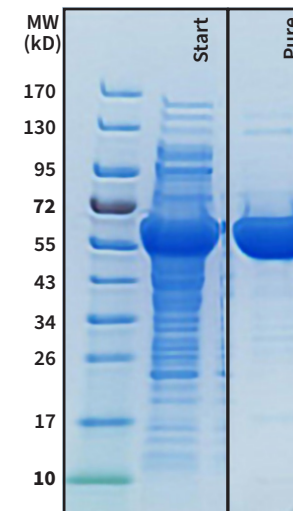
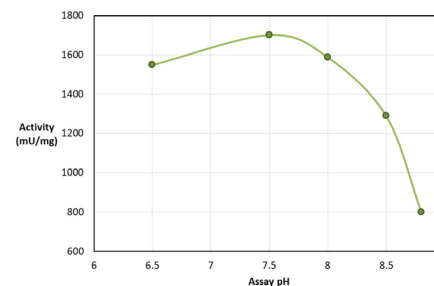
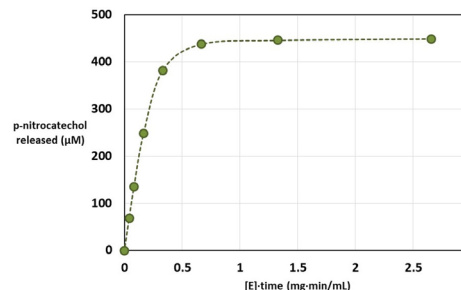
Activity in µmol product/min-mg enzyme

Sulfatase activity is represented on a logarithmic scale, with:

0	no detectable activity
1	0.005-0.05
2	0.05-0.5
3	0.5-5
4	5-50
5	50-500
6	500-5,000
7	5,000-50,000

PaS	<i>Pseudomonas aeruginosa</i> Sulfatase
HpS	<i>Helix pomatia</i> Sulfatase
HrS	<i>Haliotis rufescens</i> Sulfatase
PvS	<i>Patella vulgata</i> Sulfatase
KpS	<i>Klebsiella pneumoniae</i> Sulfatase

Sulfazyme Activity and Purity:



Contact and Support:

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Certificate of Analysis and Safety Data Sheets are available under “resources” at www.imcstips.com.

Product Warranty & Satisfaction Guarantee

IMCS warrants that this product conforms to the information contained in this publication at the time of the quality test date. The same efficient enzymatic hydrolysis result cannot be guaranteed without the use of the supplied buffer. **For R&D use only. Not for drug, household, or other use.**

¹Stevenson BJ, Waller CC, Ma P, Li K, Cawley AT, Ollis DL, and MD McLeod (2015) *Pseudomonas aeruginosa* arylsulfatase: a purified enzyme for the mild hydrolysis of steroid sulfates. *Drug Test. and Anal.* **7**, 903-911.