

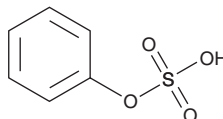
PRODUCT INFORMATION



Phenyl Sulfate

Item No. 36546

CAS Registry No.: 937-34-8
Formal Name: sulfuric acid, monophenyl ester
MF: $C_6H_5O_4S$
FW: 174.2
Purity: $\geq 98\%$
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Phenyl sulfate is supplied as a solid. A stock solution may be made by dissolving the phenyl sulfate in the solvent of choice, which should be purged with an inert gas. Phenyl sulfate is soluble in the organic solvent DMSO. It is also soluble in water. The solubility of phenyl sulfate in DMSO and water is approximately 17.4 and 37.75 mg/ml, respectively. We do not recommend storing the aqueous solution for more than one day.

Description

Phenyl sulfate is a gut microbiota-derived metabolite of tyrosine and a uremic toxin.¹ It reduces survival of, as well as decreases glutathione (GSH) levels and induces mitochondrial dysfunction in, differentiated human urinary podocyte-like epithelial cells (HUPECs) when used at a concentration of 30 μM .² Phenyl sulfate (50 mg/kg) induces podocyte damage and albuminuria in a *db/db* mouse model of diabetes. Increased plasma levels of phenyl sulfate correlate with the progression of albuminuria in patients with diabetic kidney disease.

References

1. Mishima, E., Fukuda, S., Mukawa, C., *et al.* Evaluation of the impact of gut microbiota on uremic solute accumulation by a CE-TOFMS-based metabolomics approach. *Kidney Int.* **92**(3), 634-645 (2017).
2. Kikuchi, K., Saigusa, D., Kanemitsu, Y., *et al.* Gut microbiome-derived phenyl sulfate contributes to albuminuria in diabetic kidney disease. *Nat. Commun.* **10**(1), 1835 (2019).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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