

PRODUCT INFORMATION



6-Thioguanosine-5'-O-diphosphate (sodium salt)

Item No. 38389

Formal Name: 6-thio-guanosine 5'-(trihydrogen diphosphate), trisodium salt

Synonyms: TGDP, 6-Thio-GDP

MF: $C_{10}H_{12}N_5O_{10}P_2S \cdot 3Na$

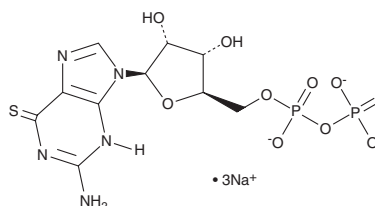
FW: 525.2

Purity: $\geq 95\%$

Supplied as: A solution in water

Storage: $-80^{\circ}C$

Stability: ≥ 4 years



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

Description

6-Thioguanosine-5'-O-diphosphate is an inactive metabolite of the purine analog 6-thioguanine (Item No. 15774) and the immunosuppressive purine analog azathioprine (Item No. 13987).^{1,2} It is formed from 6-thioguanine via a 6-thioguanosine monophosphate intermediate by phosphorylation and from azathioprine via 6-mercaptopurine (Item No. 23675) and other intermediates by a non-enzymatic process and several enzymatic reactions. Elevated blood levels of 6-thioguanosine-5'-O-diphosphate in patients with Crohn's disease correlate with a lower response rate to azathioprine.²

References

1. Hawwa, A.F., Millership, J.S., Collier, P.A., *et al.* Pharmacogenomic studies of the anticancer and immunosuppressive thiopurines mercaptopurine and azathioprine. *Br. J. Clin. Pharmacol.* **66**(4), 517-528 (2008).
2. Neurath, M.F., Kiesslich, R., Teichgraber, U., *et al.* 6-Thioguanosine diphosphate and triphosphate levels in red blood cells and response to azathioprine therapy in Crohn's disease. *Clin. Gastroenterol. Hepatol.* **3**(10), 1007-1014 (2005).

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.

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