

Store at  
-20°C  
#12328**Sunitinib**

10 mg



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**For Research Use Only. Not for Use in Diagnostic Procedures.**

**Background**

Sunitinib, also known as SU11248, is a multi-tyrosine kinase inhibitor widely known to target PDGFR, VEGFR, KIT, and FLT3, and therefore has both antitumor and antiangiogenic activities. Cellular phosphorylation assays show that sunitinib effectively inhibits ligand-dependent phosphorylation of these receptor tyrosine kinases in nanomolar concentrations and can also inhibit ligand-dependent cellular proliferation (1-3). Sunitinib displays greater than 10-fold selectivity for PDGFRB and VEGFR over numerous other kinases, including EGFR, Cdk2, Met, IGF-1R, Abl, and src (2). Inhibition of CSF-1 (4) and RET (5) by sunitinib has also been observed.

This product has applications to SARS-CoV-2 research into the mechanisms of the Novel Coronavirus, which has caused the COVID-19 pandemic.

**Molecular Formula**

$C_{22}H_{27}FN_4O_2 \cdot C_4H_6O_5$

**Molecular Weight**

532.56 g/mol

**Purity**

>99%

**CAS**

341031-54-7

**Solubility**

Soluble in DMSO at 40mg/ml.

**Storage**

Store lyophilized or in solution at -20°C, desiccated. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.

**Directions for Use**

Sunitinib is supplied as a lyophilized powder. For a 5 mM stock, reconstitute the 10 mg in 3.76 ml DMSO. Working concentrations and length of treatment can vary depending on the desired effect, but it is typically used at 0.1-10  $\mu$ M either as a pretreatment for 0.5-2 hr prior to treating with a stimulator or is used alone with varying treatment times lasting up to 24 hr. Sunitinib is soluble in DMSO at 40 mg/ml; poorly soluble in ethanol and water with maximum solubility in water ~10-50  $\mu$ M.

**Background References**

1. Abrams, T.J. et al. (2003) *Mol Cancer Ther* 2, 471-8.
2. Mendel, D.B. et al. (2003) *Clin Cancer Res* 9, 327-37.
3. O'Farrell, A.M. et al. (2003) *Blood* 101, 3597-605.
4. Guo, J. et al. (2006) *Mol Cancer Ther* 5, 1007-13.
5. Broutin, S. et al. (2011) *Clin Cancer Res* 17, 2044-54.

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