

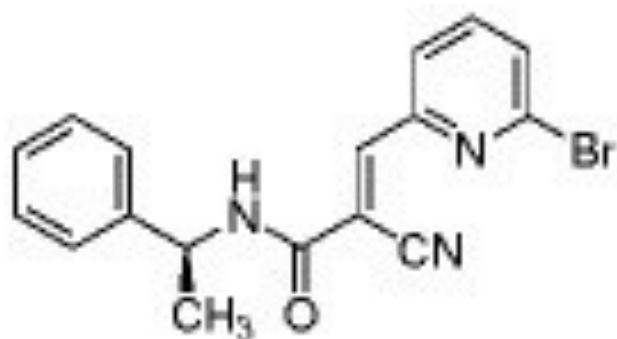
Cat No. 76-J32

WP1066

10mg

WP1066 is a Janus kinase (Jak) 2 inhibitor. It works by degrading the Jak2 protein, thus blocking its downstream signal transducer and activator of transcription (STAT) and phosphoinositide-3-kinase pathways to result in the activation of the caspase pathway. The Jak/STAT pathway is one of a handful of pleiotropic cascades used to transduce a multitude of signals for development and homeostasis in animals. In mammals, it is the principal signaling mechanism for a wide array of cytokines and growth factors. WP1066 also acts as an immune adjuvant by inducing proliferation of effector T cells and upregulating CD86 and CD80.

## TECHNICAL INFORMATION



**Other Names:** (S,E)-3-(6-bromopyridin-2-yl)-2-cyano-N-(1-phenylethyl)acrylamine

**Chemical Formula:** C<sub>17</sub>H<sub>14</sub>BrN<sub>3</sub>O

**CAS Number:** 857064-38-1

**PubChem Substance ID:** 11210478

**Molecular Weight:** 356.22

**Purity:** >99%

**Appearance:** Off White Solid

**Solubility:** DMSO

**IC<sub>50</sub> :** JAK2= 2.3µm, Stat3= 2.43µm



For research purposes only

## STORAGE AND HANDLING

**Storage:** Store at 4°C and protected from light. Following reconstitution, store aliquots at -20°C.

**Stability:** Stock solutions stable at -20°C for up to 2 years.

**Shipping Conditions:** Shipped at room temperature.

## PRODUCT USE

Soluble in ≥71mg/mL of DMSO.

## REFERENCES

1. Hatiboglu, M.A., et al (2012). The tumor microenvironment expression of the p-Stat3 influences the efficacy of cyclophosphamide with WP1066 in murine melanoma models. *Int. J. Cancer.* 131:8-17.
2. Horiuchi, A., et al (2010). Stat3 inhibitor WP1066 as a novel therapeutic agent for renal cell carcinoma. *Br. J. Cancer.* 102-1592-9.
3. Verstovsek, S., et al (2008). WP1066, a novel JAK2 inhibitor, suppresses proliferation and induces apoptosis in erythroid human cells carrying the JAK2 V617F mutation. *Clin. Cancer Res.* 14:788-96.