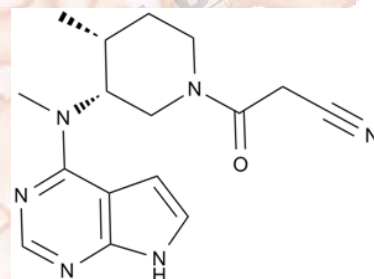


## Product Data Sheet

### Tofacitinib (CP-690550, Tasocitinib)

|                  |  |
|------------------|--|
| <b>Cat. No.:</b> | A4138  |
| <b>CAS No.:</b>  | 477600-75-2                                      |
| <b>Formula:</b>  | C <sub>16</sub> H <sub>20</sub> N <sub>6</sub> O |
| <b>M.Wt:</b>     | 312.37   |
| <b>Synonyms:</b> |  |
| <b>Target:</b>   | Chromatin/Epigenetics                            |
| <b>Pathway:</b>  | JAK  |
| <b>Storage:</b>  | Store at -20°C                                   |



### Solvent & Solubility

insoluble in EtOH; insoluble in H<sub>2</sub>O; ≥15.6 mg/mL in DMSO

In Vitro

| Preparing Stock Solutions | Solvent              | Mass      |            |            |
|---------------------------|----------------------|-----------|------------|------------|
|                           |                      | 1mg       | 5mg        | 10mg       |
|                           | <b>Concentration</b> |           |            |            |
|                           | <b>1 mM</b>          | 3.2013 mL | 16.0067 mL | 32.0133 mL |
|                           | <b>5 mM</b>          | 0.6403 mL | 3.2013 mL  | 6.4027 mL  |
|                           | <b>10 mM</b>         | 0.3201 mL | 1.6007 mL  | 3.2013 mL  |

Please refer to the solubility information to select the appropriate solvent.

### Biological Activity

Shortsummary

Janus kinase inhibitor

IC<sub>50</sub> & Target

In Vitro

#### Cell Viability Assay

|                      |   |
|----------------------|---|
| Cell Line:           | Human T cells and human myelomonocytic cell line HUO3   |
| Preparation method:  | The solubility of this compound in DMSO is > 15.6 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months. |
| Reacting conditions: | 0 ~ 4000 nM; 4 days   |

|         |                          |  |
|---------|--------------------------|--|
|         | Applications:            | In human T cell blasts induced by IL-2, CP-690550 inhibited cell proliferation with an IC50 value of 11 nM. In human myelomonocytic HUO3 cells induced by GM-CSF, CP-690550 inhibited cell proliferation with an IC50 value of 324 nM. |
| In Vivo | <b>Animal experiment</b> |  |
|         | Animal models:           | Heterotopic heart transplantation mouse model  |
|         | Dosage form:             | 0 ~ 136 ng/mL; osmotic minipump infusion   |
|         | Applications:            | In a heterotopic heart transplantation mouse model, CP-690550 dose-dependently increased survival of transplanted hearts. Mice received CP-690550 at the concentration of ~ 60 ng/mL maintained their grafts for > 28 days.            |
|         | Other notes:             | Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.   |

## Product Citations

1. Liu S, Verma M, et al. "Steroid Resistance of Airway Type 2 Innate Lymphoid Cells (ILC2s) from Severe Asthma: The Role of Thymic Stromal cell Lymphopoietin (TSLP)." J Allergy Clin Immunol. 2017 Apr 19. pii: S0091-6749(17)30660-7. PMID:28433687

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## References

[1]. Changelian PS, Flanagan ME, Ball DJ, Kent CR, Magnuson KS, Martin WH, Rizzuti BJ, Sawyer PS, Perry BD, Brissette WH, McCurdy SP, Kudlacz EM, Conklyn MJ, Elliott EA, Koslov ER, Fisher MB, Strelevitz TJ, Yoon K, Whipple DA, Sun J, Munchhof MJ, Doty JL, Casavant JM, Blumenkopf TA, Hines M, Brown MF, Lillie BM, Subramanyam C, Shang-Poa C, Milici AJ, Beckius GE, Moyer JD, Su C, Woodworth TG, Gaweco AS, Beals CR, Littman BH, Fisher DA, Smith JF, Zagouras P, Magna HA, Saltarelli MJ, Johnson KS, Nelms LF, Des Etages SG, Hayes LS, Kawabata TT, Finco-Kent D, Baker DL, Larson M, Si MS, Paniagua R, Higgins J, Holm B, Reitz B, Zhou YJ, Morris RE, O'Shea JJ, Borie DC. Prevention of organ allograft rejection by a specific Janus kinase 3 inhibitor. Science. 2003 Oct 31;302(5646):875-8.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



## APExBIO Technology

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