

Store at
-20°C
#12466

Pazopanib

10 mg

www.cellsignal.com

Support: 877-678-TECH (8324)
www.cellsignal.com/support

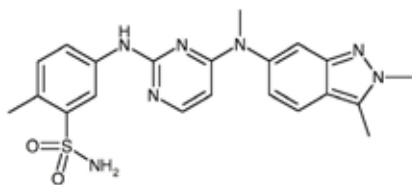
Orders: 877-616-CELL (2355)
orders@cellsignal.com

rev. 07/11/14

For Research Use Only. Not For Use In Diagnostic Procedures.

Background: Pazopanib is a multikinase inhibitor that potently targets VEGFR1 (IC₅₀ = 10 nM), VEGFR2 (IC₅₀ = 30 nM), VEGFR3 (IC₅₀ = 47 nM), PDGFR α (IC₅₀ = 71 nM), PDGFR β (IC₅₀ = 84 nM), and c-Kit (IC₅₀ = 74 nM) tyrosine kinases involved in tumor progression and angiogenesis, and can also inhibit many other tyrosine kinases at nanomolar concentrations (1). Research studies have demonstrated that pazopanib effectively blocks ligand-induced autophosphorylation of VEGFR2, PDGFR β , and c-Kit *in vitro* (1,2), and selectively inhibits VEGF-induced HUVE cell proliferation over FGF (IC₅₀ = ~21 nM vs ~720 nM). Investigators have demonstrated that pazopanib inhibits the growth, survival, and migration of multiple myeloma (MM) cell types (3).

Molecular Formula: C₂₁H₂₃N₇O₂S



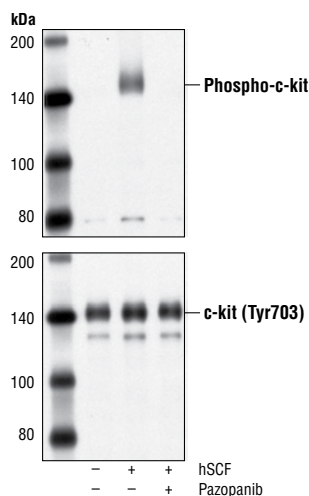
Molecular Weight: 437.52 g/mol

Solubility: Soluble in DMSO at 8 mg/mL with slight warming; very poorly soluble in ethanol and water with maximum in water ~10-20 μ M.

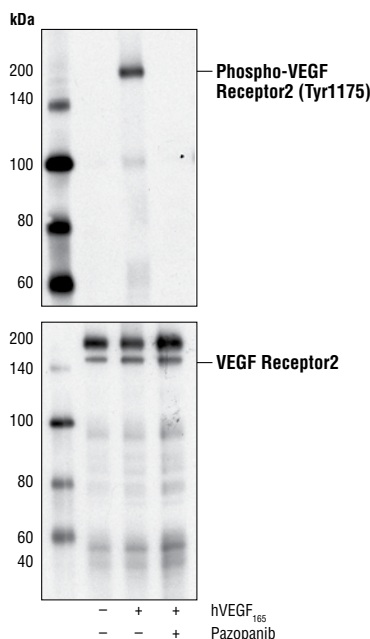
Purity: >99%

Directions for Use: Pazopanib is supplied as a lyophilized powder. For a 10 mM stock, reconstitute the 10 mg in 2.29 ml DMSO. Working concentrations and length of treatment can vary depending on the desired effect, but it is typically used as a pretreatment at 0.1-10 μ M for 0.5-2 hr prior to treating with a stimulator. It can also be used alone, with varying treatment times lasting up to 24 hr.

Western blot analysis of extracts from HUVE cells, serum-starved overnight and untreated (-) or treated with Human Vascular Endothelial Growth Factor (hVEGF165) #8065 (50 ng/ml, 5 min; +) either with or without pazopanib pre-treatment (1 μ M, 2 hr; +), using Phospho-VEGF Receptor 2 (Tyr1175) (19A10) Rabbit mAb #2478 (upper) or VEGF Receptor 2 (55B11) Rabbit mAb #2479 (lower).



Western blot analysis of extracts from NCI-H526 cells, serum-starved overnight and untreated (-) or treated with Human Stem Cell Factor (hSCF) #8925 (100 ng/ml, 5 min; +) either with or without pazopanib pre-treatment (1 μ M, 2 hr; +), using Phospho-c-Kit (Tyr703) (D12E12) Rabbit mAb #3073 (upper) or c-Kit (D13A2) XP[®] Rabbit mAb #3074 (lower).



Storage: Store lyophilized or in solution at -20°C, desiccated. 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.

Background References:

- (1) Kumar, R. et al. (2007) *Mol Cancer Ther* 6, 2012-21.
- (2) Kumar, R. et al. (2009) *Br J Cancer* 101, 1717-23.
- (3) Podar, K. et al. (2006) *Proc Natl Acad Sci USA* 103, 19478-83.

Thank you for your recent purchase. If you would like to provide a review visit www.cellsignal.com/comments.

SECTION 1. Identification

Product identifier

Product No. 12466
Product name Pazopanib
Other means of identification 12466S

Recommended use of the chemical and restrictions on use

Identified uses This product is intended for research purposes only.
Uses advised against This product is not intended for use in diagnostic procedures or therapeutics. This product is not intended for use in humans or animals.

Manufacturer, importer, supplier

Manufacturer address Cell Signaling Technology, Inc.
 3 Trask Lane
 Danvers, MA 01923
 TEL: +1 978 867 2300
 FAX: +1 978 867 2400
Website www.cellsignal.com
Email address support@cellsignal.com
Company phone number 978-867-2300
Emergency telephone number In case of emergency call CHEMTREC 1-800-424-9300

SECTION 2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive toxicity	Category 1B
Specific target organ toxicity - repeated exposure (STOT RE)	Category 1

GHS Label elements, including precautionary statements



Signal Word
 Danger

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion Data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Ensure adequate ventilation.
Other information No information available.

Environmental precautions

Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.
Methods for cleaning up Use personal protective equipment. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically and collect in suitable container for disposal. Avoid dust formation. Clean contaminated surface thoroughly.

SECTION 7. Handling and storage

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep containers tightly closed in a dry, cool and well-ventilated place.
Packaging material No information available.
Incompatible products None known based on information supplied.

SECTION 8. Exposure controls/personal protection

Control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Hazard statement(s)
 May damage fertility or the unborn child
 Causes damage to organs through prolonged or repeated exposure

Precautionary Statement(s)
 Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Do not breathe dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 IF exposed or concerned: Get medical advice/attention

Supplementary Hazard Information

Hazards not otherwise classified (HNOC) No information available
Unknown Acute Toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity.

SECTION 3. Composition/information on ingredients

Formula C₂₁H₂₅N₃O₅S
Molecular Weight 437.52
Common name Pazopanib
Synonyms Pazopanib; Votrient; GW786034; UNII-7RN5DR86CK

Chemical Name	CAS No.	Weight %
5-[[4-[(2,3-Dimethyl-2H-indazol-6-yl)methylamino]-2-pyrimidinyl]amino]-2-methylbenzolsulfonamide	444731-52-6	60-100

SECTION 4. First-aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact Wash skin with soap and water.
Inhalation Move to fresh air.
Ingestion Clean mouth with water and afterwards drink plenty of water.

Most important symptoms and effects, both acute and delayed

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

Notes to physician Hepatotoxicity manifested as increases in serum transaminases (ALT, AST) and bilirubin; can be severe and fatal. Hemorrhagic events have been reported.

Advice for emergency responders

General advice For further assistance, contact your local Poison Control Center.
Protection of First-aiders Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SECTION 5. Fire-fighting measures

Extinguishing media

Showers, eyewash stations, and ventilation systems.

Individual protection measures, such as personal protective equipment

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

Eye/face protection Safety glasses with side-shields.
Skin and body protection Wear protective gloves/clothing.
Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene measures Do not eat, drink or smoke when using this product.

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Solid
Appearance Crystalline powder
Odor No information available
Color White to off-white
Odor Threshold No information available
pH No information available
Melting point/freezing point 301-303 °C
Initial boiling point and boiling range No information available
Flash point No information available
Evaporation rate No information available
Flammability (solid, gas) No information available
Upper flammability limit No information available
Lower flammability limit No information available
Vapor pressure No information available
Vapor density No information available
Relative density No information available
Solubility Practically insoluble
Solubility in other solvents 8.3 mg/mL in Dimethyl sulfoxide (DMSO) with slight warming; very poorly soluble in Ethanol (EtOH).
Partition coefficient: n-octanol/water No information available
Autoignition temperature No information available
Decomposition temperature No information available
Explosive properties No information available
Oxidizing properties No information available
Molecular Weight 437.52
VOC content No information available
Viscosity No information available
Density No information available

SECTION 10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous reactions None under normal processing.
Hazardous polymerization None under normal processing.

Conditions to Avoid

No information available.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

SECTION 11. Toxicological information**Information on likely routes of exposure**

Inhalation There is no data available for this product.
Eye contact There is no data available for this product.
Skin contact There is no data available for this product.
Ingestion May cause adverse liver effects.

Information on toxicological effects

This product is for experimental uses only. The product has not been completely analyzed and all of the hazards may not be known. Please use caution while handling this product.

Unknown Acute Toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Corrosivity No information available.
Sensitization No information available.
Mutagenic effects Not mutagenic in AMES Test.
Carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA. This material is classified as a Pregnancy Category D: Positive evidence of risk.
Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure if swallowed. May cause disorder and damage to the: Liver, Liver, Reproductive system, Digestive System.
Target Organ Effects No information available.
Neurological effects No information available.
Aspiration Hazard No information available.

SECTION 12. Ecological information**Ecotoxicity**

100% of the mixture consists of component(s) of unknown hazards to the aquatic environment

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label Information

This product does not contain any substances regulated as pesticides.

SECTION 16. Other information

Issuing Date: 2014-03-13

Revision Date: 2014-03-13

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Persistence and degradability No information available.
Bioaccumulation No information available.
Mobility No information available

Other adverse effects

No information available.

SECTION 13. Disposal considerations**Waste Disposal Methods**

Dispose of in accordance with all applicable national environmental laws and regulations.

Disposal considerations

Do not empty into drains; dispose of this material and its container in a safe way.

SECTION 14. Transport information

This material is not subject to regulation as a hazardous material for shipping.

SECTION 15. Regulatory information**North American Inventory Listing**

Component	TSCA	DSL	NDSL
5-[[4-[(2,3-Dimethyl-2H-indazol-6-yl)imethylamino]-2-pyrimidinyl]amino]-2-methylbenzolsulfonamide 444731-52-6 (60-100)	Not Listed	Not Listed	Not Listed

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).