Product Specification Sheet

**Product Name:** NVP-BGT226  
**Catalog Number:** C2482

### Technical information:
- **Chemical Formula:** C_{28}H_{25}F_{3}N_{6}O_{2}.C_{4}H_{4}O_{4}
- **CAS #:** 1245537-68-1
- **Molecular Weight:** 650.6
- **Purity:** > 98%
- **Appearance:** White
- **Solubility:** Soluble in DMSO up to 22 mM
- **Chemical Name:** 8-((6-methoxyopyridin-3-yl)-3-methyl-1-(4-(piperazin-1-yl)-3-(trifluoromethyl)phenyl)-1H-imidazo[4,5-c]quinolin-2(3H)-one Maleic acid
- **Storage:** Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.
- **Shelf Life:** In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.

### Handling:
- To make 10 mM stock solution, add 0.154mL of DMSO for each mg of NVP-BGT226
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

### Biological Activity:
NVP-BGT226 is a novel orally bioavailable dual PI3K/mTOR inhibitor. It selectively inhibits PI3K and both mTOR complexes mTORC1 and mTORC2, resulting in nearly complete phosphorylation-inhibition of P70S6 and 4E-BP1.

BGT226 demonstrated excellent cellular activities in inhibiting proliferations (IC50: 7-30 nM) of many tested cell lines. Notably, cells that express PIK3CA mutation H1047R are still sensitive to the growth-inhibition of BGT226. Flow cytometric analysis shows accumulation of cells in the G0-G1 phase with concomitant loss in the S-phase. BGT226 induces apoptosis or autophagy of some cancer cells at IC50 less than 25nM. In animal models, BGT226 significantly delays/inhibits tumor growth in a dose-dependent manner. BGT-226 represents a potential candidate for cancer therapy. It has entered phase/II clinical trials for treatment of advanced solid tumors (including breast cancer) [1-4].

### Reference:
   Pubmed ID: 

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