| Store at<br>-20C | Trametinib   | C T                         | ECHNOLOGY*                                   |
|------------------|--|-----------------------------|--|
|                  |  | Orders:                     | 877-616-CELL (2355)<br>orders@cellsignal.com |
| <u>)</u>         | 10 mg  | Support:                    | 877-678-TECH (8324)                          |
| 622(             |  | Web:                        | info@cellsignal.com<br>cellsignal.com        |
| #                |  | 3 Trask Lane   Danvers   Ma | ssachusetts   01923   USA                    |
| or Re            | search Use Only. Not for Use in Diagnostic Procedures. |                             |  |

| Background             | Trametinib, also known as GSK1120212, is a potent and selective inhibitor of MEK with an $IC_{50}$ of 0.7 nM for u-MEK1 and 14.9 nM for pp-MEK1 (1). When compared to several tyrosine kinase inhibitors (TKIs) and MEK inhibitors (MEKIs) in endothelial cells, Trametinib displays the highest level of antiangiogenic activity and is the most effective ERK1/2 inhibitor ( $IC_{50}$ = 1.3 nM) (2). Trametinib has also been shown to be the most effective at reducing proliferation in low-grade serous ovarian cancers (LGSCs) when compared to other MEKIs (3).   |
|------------------------|---|
| Molecular Formula      | C <sub>26</sub> H <sub>23</sub> FIN <sub>5</sub> O <sub>4</sub>   |
| Molecular Weight       | 615.4 g/mol   |
| Purity                 | >98%  |
| CAS                    | 871700-17-3   |
| Solubility             | Soluble in DMSO at 20 mg/ml with slight warming.  |
| Storage                | Store lyophilized at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 3 months to prevent loss of potency. <i>Aliquot to avoid multiple freeze/thaw cycles.</i>  |
| Directions for Use     | Trametinib is supplied as a lyophilized powder. For a 15 mM stock, reconstitute 10 mg of powder in 1.08 ml of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.  |
| Background References  | 1. Gilmartin, A.G. et al. (2011) <i>Clin Cancer Res</i> 17, 989-1000.<br>2. Bridgeman, V.L. et al. (2016) <i>Mol Cancer Ther</i> 15, 172-83.<br>3. Fernández, M.L. et al. (2016) <i>Am J Cancer Res</i> 6, 2235-51.   |
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