

# CDK6/cyclin D1 Kinase Assay Service

Activity-based CDK6/cyclin D1 kinase assay for compound screening and profiling via [radiometric HotSpot™ kinase assay](#).

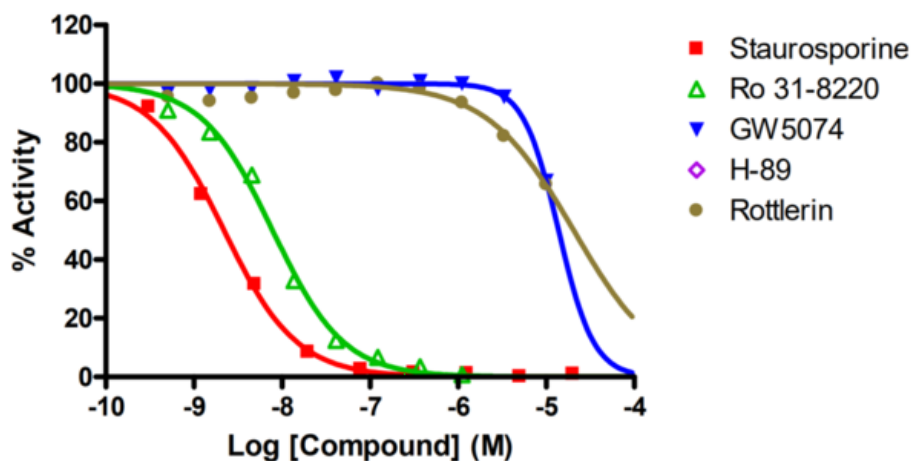
## Target Overview

|                   |                               |
|-------------------|-------------------------------|
| <b>CAT#</b>       | CDK6/Cyclin D1                |
| <b>Enzyme</b>     | Human CDK6/Cyclin D1          |
| <b>HGNC</b>       | CDK6/CCND1                    |
| <b>Synonym</b>    | PLSTIRE                       |
| <b>Substrates</b> | RB protein, 3 μM<br>ATP 10 μM |

## Assay Properties

| <b>Reaction</b>                 | Substrate + [ <sup>32</sup> P]-ATP = <sup>32</sup> P-Substrate + ADP   |           |           |               |     |            |      |         |        |      |          |           |        |
|---------------------------------|--|-----------|-----------|---------------|-----|------------|------|---------|--------|------|----------|-----------|--------|
| <b>Readout</b>                  | Enzymatic activity   |           |           |               |     |            |      |         |        |      |          |           |        |
| <b>Reference Compound IC50s</b> | <table border="1"> <thead> <tr> <th>Compounds</th> <th>IC50 (nM)</th> </tr> </thead> <tbody> <tr> <td>Staurosporine</td> <td>2.2</td> </tr> <tr> <td>Ro 31-8220</td> <td>7.83</td> </tr> <tr> <td>GW 5074</td> <td>13,800</td> </tr> <tr> <td>H-89</td> <td>&gt;100,000</td> </tr> <tr> <td>Rottlerin</td> <td>20,500</td> </tr> </tbody> </table> | Compounds | IC50 (nM) | Staurosporine | 2.2 | Ro 31-8220 | 7.83 | GW 5074 | 13,800 | H-89 | >100,000 | Rottlerin | 20,500 |
| Compounds                       | IC50 (nM)  |           |           |               |     |            |      |         |        |      |          |           |        |
| Staurosporine                   | 2.2  |           |           |               |     |            |      |         |        |      |          |           |        |
| Ro 31-8220                      | 7.83   |           |           |               |     |            |      |         |        |      |          |           |        |
| GW 5074                         | 13,800   |           |           |               |     |            |      |         |        |      |          |           |        |
| H-89                            | >100,000   |           |           |               |     |            |      |         |        |      |          |           |        |
| Rottlerin                       | 20,500   |           |           |               |     |            |      |         |        |      |          |           |        |
| <b>Scientific Information</b>   | CDK6: <a href="http://www.uniprot.org/uniprot/Q00534">Q00534</a> ( <a href="http://www.uniprot.org/uniprot/Q00534">http://www.uniprot.org/uniprot/Q00534</a> ) Cyclin D1: <a href="http://www.uniprot.org/uniprot/P24385">P24385</a> ( <a href="http://www.uniprot.org/uniprot/P24385">http://www.uniprot.org/uniprot/P24385</a> )                 |           |           |               |     |            |      |         |        |      |          |           |        |
| <b>Screening Location</b>       | Malvern, USA   |           |           |               |     |            |      |         |        |      |          |           |        |

## Reference compound IC50 for CDK6/cyclin D1



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