3X FLAG Peptide

Cat. No.: A6001
CAS No.: C120H169N31O49S
M.Wt: 2861.87
Synonyms: H-Met-Asp-Tyr-Lys-Asp-His-Asp-Gly-Asp-Tyr-
Lys-Asp-His-Asp-Ile-Asp-Tyr-Lys-Asp-Asp-
p-Asp-Lys-OH
Target: Tag Peptides
Pathway: Desiccate at -20°C

Solvent & Solubility

≥25mg/ml in TBS (0.5M Tris-HCl, pH 7.4, with 1M NaCl), 1X TBS as recommended buffer.

<table>
<thead>
<tr>
<th>Preparing</th>
<th>Mass Concentration</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Vitro</td>
<td>Solvent</td>
<td>1mM</td>
<td>5mM</td>
<td>10mM</td>
</tr>
<tr>
<td></td>
<td>1 mM</td>
<td>0.3494 mL</td>
<td>1.7471 mL</td>
<td>3.4942 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.0699 mL</td>
<td>0.3494 mL</td>
<td>0.6988 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.0349 mL</td>
<td>0.1747 mL</td>
<td>0.3494 mL</td>
</tr>
</tbody>
</table>

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

Biological Activity

Shortsummary

Synthetic peptide tag

IC₅₀ & Target

Cell Viability Assay

Preparation method: 3-DYKDDDDK peptide has found widespread use as a mild purification reagent for DYKDDDDK-epitope tagged recombinant proteins. Although its affinity columns release monovalent flagged proteins in the absence of calcium, the antibody retains substantial affinity for the DYKDDDDK sequence even in metal-free conditions, so that it has been impossible to use it to develop a metal-sensitive ELISA assay. This is
due to the ability of the antibody to remain bound to polyvalent surface-coated antigen, for instance, when Flagged proteins are bound to ELISA plates or blotting filters. The resultant antigen polyvalence raises the avidity of the DYKDDDDK antibody to a point where the reaction is essentially calcium-independent. However, when the antibody itself was made monovalent, by proteolytic cleavage to the Fab, this situation was reversed and the ELISA reaction became calcium-dependent. This new metal-dependent ELISA assay was used to explore the metal requirements of the antibody in detail. Among divalent metals, binding tapered off with increasing radius above that of calcium, or with decreasing radius below that of calcium. Several smaller metals, such as nickel, acted as inhibitors of the binding reaction. Substantial binding was demonstrated for heavy metals such as cadmium, lanthanum and samarium. Because it is of interest to use this antibody for the co-crystallization of recombinant DYKDDDDK-fusion proteins, the ability to bind heavy metals was a significant finding.

Applications: The solubility of this peptide in sterile water is >10 mM. Stock solution should be split and stored at -80°C for several months.

In Vivo

Animal experiment

Applications:

Product Citations


References

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