# Cys-Aequorin: Ca^{2+}-Binding Photoprotein for Chemical Conjugation

<table>
<thead>
<tr>
<th>Cat. No.:</th>
<th>T-002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code:</td>
<td>Cys-AQ</td>
</tr>
<tr>
<td>Source:</td>
<td>Recombinant protein expressed in <em>E. coli.</em></td>
</tr>
<tr>
<td>Form:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Constituents:</td>
<td>10 mM Tris-HCl (pH 7.5) – 2 mM EDTA – 1.2 M (NH₄)₂SO₄</td>
</tr>
<tr>
<td>Purity:</td>
<td>&gt; 95% (SDS-PAGE under reducing conditions)</td>
</tr>
<tr>
<td>Preservative:</td>
<td>None</td>
</tr>
<tr>
<td>Recommended Storage:</td>
<td>Store at -80 °C upon receipt.</td>
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<tr>
<td>Shipping condition:</td>
<td>Shipping with dry ice.</td>
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<tr>
<td>Size:</td>
<td>50 μg</td>
</tr>
<tr>
<td>Protein concentrations:</td>
<td>1 mg/mL (Bradford protein assay)</td>
</tr>
<tr>
<td>Remarks:</td>
<td>Avoid contamination of Ca^{2+}.</td>
</tr>
<tr>
<td>Uses:</td>
<td>Cys-Aequorin has a reactive –SH group for chemical conjugation with maleimide-activated ligands (biotin, avidin, antibody etc) and uses for immunoassay.</td>
</tr>
</tbody>
</table>

**References:**


Laboratory Reagent For Research Use Only

Not for resale without prior written consent from JNC Corporation.
Cys-Aequorin

Product code: Cys-AQ

- Cys-Aequorin is a mutated aequorin possessing a reactive –SH group for chemical conjugation with maleimide-activated ligands (biotin, avidin, antibody etc).
- Cys-Aequorin conjugated with ligands shows no significant loss of luminescence activity.
- On request, we can prepare Cys-aequorin pre-conjugated with an antibody.

Chemical conjugations of Cys-Aequorin

Immunoassay with AAA complex

The feature of high sensitive aequorin assay

- **Ca²⁺ specific reaction**
  - No background. No false positive.
  - It is not necessary to prepare a reagent for detection.
- **Flash luminescence**
  - High signal to noise ratio (high S/N ratio).
  - Less time to acquire results.
- **High sensitivity**
  - > 3 fg per assay, 100 times higher sensitivity than firefly luciferase.

Immuonoassay with AAA Complex

Detection of aequorin flash luminescence is performed only by the adding of Ca²⁺, without a substrate.

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Supplier

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