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Not for use in diagnostic procedures.



# HA Peptide

 **Version: 06**

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Peptide sequence YPYDVPDYA, recognized by Anti-HA, clone 12CA5.

**Cat. No. 11 666 975 001**    5 mg

**Store the product at –15 to –25°C.**

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# 1. General Information

## 1.1. Contents

Vial / Bottle	Label	Function / Description	Content
1	HA Peptide	<ul style="list-style-type: none"><li>▪ White lyophilizate</li><li>▪ Contains no preservatives.</li></ul>	1 vial, 5 mg

## 1.2. Storage and Stability

### Storage Conditions (Product)

When stored at  $-15$  to  $-25^{\circ}\text{C}$ , the product is stable through the expiry date printed on the label.

Vial / Bottle	Label	Storage
1	HA Peptide	Store at $-15$ to $-25^{\circ}\text{C}$ .

## 1.3. Additional Equipment and Reagent required

### For reconstitution of lyophilizate

- Tris-buffered saline (TBS) or appropriate buffer

## 1.4. Application

The 27-base DNA sequence that encodes the 12CA5 epitope (YPYDVPDYA) can be added to a gene by site-directed mutagenesis or by PCR, resulting in a recombinant fusion protein product recognized by the Anti-HA monoclonal antibody. Such an epitope-tagged fusion protein present in crude cellular extracts can be purified by complexing to an Anti-HA monoclonal antibody that has been covalently immobilized on protein A Sepharose. After washes to remove non-epitope-tagged biomolecules, this HA Peptide gently removes the HA-tagged protein by competitive elution, resulting in a biologically active HA fusion product.

## 2. How to Use this Product

### 2.1. Before you Begin

#### Working Solution

##### Reconstitution and working concentration

For immunoaffinity purification on an Anti-HA monoclonal antibody affinity support:

- 1 Dissolve the HA Peptide in an appropriate buffer, such as Tris-buffered saline at a concentration of 1 mg/ml.

**⚠ Prepare convenient aliquots and store them at  $-15$  to  $-25^{\circ}\text{C}$ .**

- 2 Elute HA-tagged fusion product with at least 2 volumes of HA Peptide solution.

**i** *The optimal buffer and dilution conditions must be determined for each specific application and method.*

### 2.2. Parameters

#### Molecular Weight

The HA nonapeptide has a mass of  $1,103.2 \pm 1.0$  Da as determined by electrospray mass spectroscopy.

#### Purity

$\geq 95\%$ , as determined by reverse-phase HPLC.

## 3. Additional Information on this Product

### 3.1. Test Principle

#### Background Information

The HA peptide comprises the epitope recognized by mouse monoclonal antibody Anti-HA (clone 12CA5), which is commonly used in epitope tagging applications. The HA Peptide sequence was originally identified as a major epitope of influenza hemagglutinin, a surface glycoprotein required for infectivity of the human influenza virus. This sequence is now frequently used to label proteins by recombinant DNA techniques. Such HA epitope-tagged proteins can then be detected using the Anti-HA (clone 12CA5) antibody for example immobilized on an immuno-affinity support. This HA Peptide preparation can then be used to gently purify biologically active HA epitope-tagged fusion proteins from immuno-affinity supports by competitive elution.



#### Preparation

The HA Peptide was synthetically prepared, purified by preparative reverse-phase HPLC, and lyophilized.

## 4. Supplementary Information

### 4.1. Conventions

To make information consistent and easier to read, the following text conventions and symbols are used in this document to highlight important information:

Text convention and symbols	
 <i>Information Note: Additional information about the current topic or procedure.</i>	
 <b>Important Note: Information critical to the success of the current procedure or use of the product.</b>	
① ② ③ etc.	Stages in a process that usually occur in the order listed.
1 2 3 etc.	Steps in a procedure that must be performed in the order listed.
* (Asterisk)	The Asterisk denotes a product available from Roche Diagnostics.

### 4.2. Changes to previous version

Layout changes.  
Editorial changes.

### 4.3. Trademarks

All product names and trademarks are the property of their respective owners.

### 4.4. License Disclaimer

For patent license limitations for individual products please refer to:  
**List of biochemical reagent products.**

### 4.5. Regulatory Disclaimer

For life science research only. Not for use in diagnostic procedures.

### 4.6. Safety Data Sheet

Please follow the instructions in the Safety Data Sheet (SDS).

### 4.7. Contact and Support

To ask questions, solve problems, suggest enhancements or report new applications, please visit our **Online Technical Support Site.**

To call, write, fax, or email us, visit **sigma-aldrich.com**, and select your home country. Country-specific contact information will be displayed.

