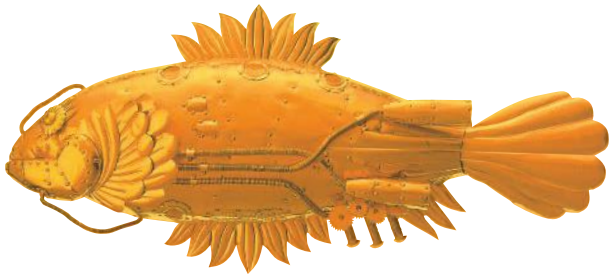
Shodex™



HPLC Columns

MANUAL

ODP2 HP-2D

SHOWA DENKO EUROPE

Columns manufactured by Showa Denko K.K Japan
Made in Japan

Shodex HPLC Columns
Europe, Middle East, Africa, Russia

For technical support please use contact details shown below:

SHOWA DENKO EUROPE GmbH
Shodex Business
Konrad-Zuse-Platz 3
81829 Munich, Germany

E-mail: support@shodex.de
Phone: +49 (0)89 93 99 62 37
www.shodex.de

Operation Manual
Shodex™ ODP2 HP-2D

(Please read this manual carefully before using the column to keep its good performance and life.)

1. Introduction

Shodex ODP2 HP series is polymer-based reversed phase column with various advantages: high theoretical plate number, high alkaline resistance, good separation of hydrophilic substances, and low adsorption of protein. The column can be used for wider range of substances compared with usual ODS column. In particular, it is suitable for separation of low-molecular-weight substances contained within a protein matrix.

2. Instructions in handling <Important>

Caution! * Take notice of keeping instructions about the solvents and the reagents used with the column not to occur problems related to losing your health or leaking.

Attention! * Use the column within the regular range of flow rate, pressure and temperature. There is a danger of deteriorating the performance when it is handled beyond the permissible range even for a short time. See the clause "Usable conditions" about the permissible range.

3. Specifications

Column size:	2.0 mm ID X 150 mm L.
Column material:	SUS 316.
Packing material:	Macroporous particle of poly(hydroxymethacrylate) type.
In-column solvent (initial):	Water/Acetonitrile = 55/45.

Number of theoretical plates: >7,000 per column.

4. Usable conditions

Flow rate:	<0.3 ml/min.
	*It should be 0.1 ml/min or less for replacing the in column solvent.

Pressure:	<15.0 MPa per column.
Temperature:	20~60 °C.
pH:	3~12.
Eluent:	Water, acid and basic aqueous solution (note the pH), buffer solution, polar organic solution or mixed solution of those can be used. <Representative acids> phosphoric acid, formic acid, acetic acid, and trifluoro acetic acid. <Representative buffer> phosphate buffer, formate buffer, acetate buffer, and carbonate buffer. <polar organic solution> methanol, acetonitrile.

Attention!

1) Do not remove the end fittings of the column under any circumstances.

2) Do not make a strong impact on the column: such as hitting or dropping on the floor.

3) Replace the solvent in the chromatograph with the eluent to be used before connecting the column.

4) Connect the column so that the flow direction corresponds to the arrow mark on the tag.

5) When the column is not used for a month or more, replace the in-column solvent with water or the initial solvent, close each end with a stopper, and store it at room temperature.

6) Adjust the total concentration of acid and salt to not more than 100 mM. In general, the range of 1 ~50 mM is suitable.

7) When methanol or acetonitrile is added to an aqueous solution of salt or a buffer solution, pay attention not to separate any salt after mixing.

8) Nonpolar solvents such as hexane and toluene cannot be used.