

# PEPperCHIP® Pan-AAV Capsid Protein Microarray

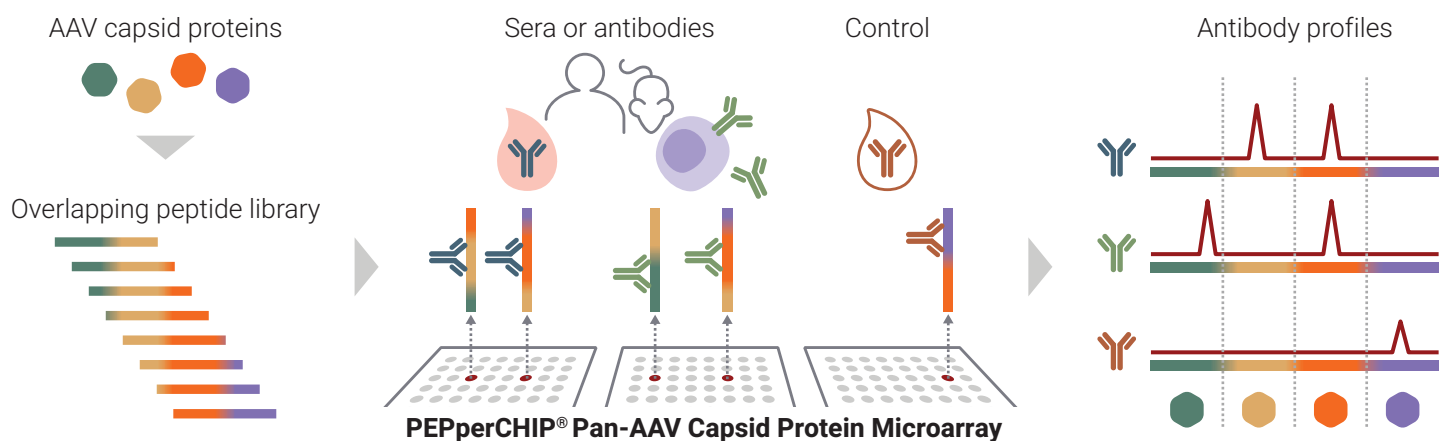
Profile antibody responses against 15 AAV capsid proteins on the epitope level, in one single assay.

Profile antibody responses against the most important wild type AAV capsid proteins with the PEPperCHIP® Pan-AAV Capsid Protein Microarray. The microarray contains the sequences of 15 different capsid proteins converted into over 5,000 overlapping peptides for high-resolution epitope data.

Available with linear or cyclic constrained peptides for linear or conformational epitope mapping, the PEPperCHIP® Pan-AAV Capsid Protein Microarray can be used to analyze patient and animal sera as well as research and diagnostic anti-AAV antibodies on the epitope level.

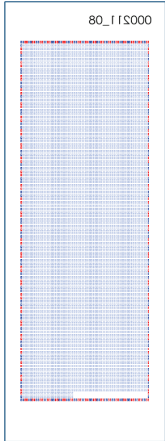
## APPLICATIONS

- Anti-AAV antibody monitoring in patient sera before and after gene therapy
- Identification of cross-reacting anti-AAV antibodies
- Identification of pre-existing anti-AAV antibody responses in healthy individuals
- Fingerprint analysis of anti-AAV antibody responses in animal models
- Validation of research or diagnostic antibodies against AAVs



**Figure 1. Antibody fingerprinting workflow using the PEPperCHIP® Pan-AAV Capsid Protein Microarray.** Fifteen different wild type AAV capsid proteins are converted into overlapping peptides and printed onto glass slides. Patient or animal serum is incubated on the microarray and antibodies present in the sample bind their corresponding epitopes on the microarray surface. The resulting response profiles can be compared across different samples to identify and monitor antibody reactivity against AAVs used in gene therapy research and development.

## PRODUCT DETAILS

Available Microarrays	PEPperCHIP® Conformational Pan-AAV Capsid Protein Microarray PEPperCHIP® Linear Pan-AAV Capsid Protein Microarray
Organism	Various adeno-associated virus
Microarray content	<p>Capsid proteins of the following AAVs:</p> <ul style="list-style-type: none"> <li>• AAV1 (protein ID NP_049542.1)</li> <li>• AAV2 (protein ID P03135)</li> <li>• AAV3b (protein ID O56139)</li> <li>• AAV4 (protein ID O41855)</li> <li>• AAV5 (protein ID Q9YIJ1)</li> <li>• AAV6 (protein ID O56137)</li> <li>• AAV7 (protein ID Q8JQG0)</li> <li>• AAV8 (protein ID Q8JQF8)</li> <li>• AAV9 (protein ID AAS99264.1)</li> <li>• AAVrh.10 (protein ID AA088201.1)</li> <li>• AAVpo.1 (protein ID ACN42940.1)</li> <li>• AAV10 (protein ID AAT46337.1)</li> <li>• AAV11 (protein ID AAT46339.1)</li> <li>• AAV12 (protein ID ABI16639.1)</li> <li>• AAV13 (protein ID ABZ10812)</li> </ul>
Sequence Compilation	<p>The sequences of 15 different wild type AAV capsid proteins were elongated with neutral GSGSGSG linkers at the N- and C-terminus to avoid truncated peptides.</p> <p>For the PEPperCHIP® Conformational Pan-AAV Capsid Protein Microarray, the elongated capsid protein sequences were converted into 5,534 different cyclic constrained peptides with a length of 13 amino acids and a peptide-peptide overlap of 11 amino acids, printed in duplicate (11,068 peptide spots).</p> <p>For the PEPperCHIP® Linear Pan-AAV Capsid Protein Microarray, the elongated capsid protein sequences were converted into 5,519 different linear 15 amino acid peptides with a peptide-peptide overlap of 13 amino acids, printed in duplicate (11,038 peptide spots).</p>
Microarray Layout	 <p>Each PEPperCHIP® Peptide Microarray is marked with microarray ID on the backside of the glass slide. The glass slide is accurately placed in an incubation tray with the microarray surface up if the microarray ID appears in the top right corner in a mirror view manner.</p> <p>Both PEPperCHIP® Conformational and Linear Pan-AAV Capsid Protein Microarrays contain a single peptide array and are compatible with a 3/1-well PEPperCHIP® Incubation Tray.</p> <p>Each PEPperCHIP® Pan-AAV Capsid Protein Microarray further contains additional HA (YPYDVPDYAG) and polio (KEVPALTA VETGAT) control peptides.</p>

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