

## CARBOXYLATED SURFACE PCR PLATE

Surfaces with carboxylic groups covalently bound are dedicated to promote the covalent immobilization of compounds containing reactive free amino groups using the EDC mediated amination.

This kind of immobilization can overcome some of the limitations connected with physical adsorption of the molecules to the surfaces:

- immobilization of molecules which are bound weakly or not at all by physical adsorption, namely small peptides (M.W. 1000-5000) drugs, toxins or hormones
- oriented immobilization of molecules in order to secure the integrity and accessibility of their specific sites
- increased storage stability compared with that of physical adsorption because of the reduced risk of spontaneous desorption

### 1. Coupling molecules, having an amino group, to Biomat COOH surface

The amino group presents in any molecules, such as peptides or proteins, binds to Biomat COOH through formation of amide bonds between the amino group presents in the molecule and the surface carboxylic group by the action of carbodiimide.

The figure 1 shows the reaction scheme for coupling of the hapten, biotin-hydrazide, through its available amino group.

**Figure 1**

