DiluCap SLD

The right excipient for highly water-soluble APIs

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The choice of the correct excipient is of great importance to ensure the clinical performance of an active pharmaceutical ingredient (API), as it can directly influence its bioavailability, solubility, stability, and other physical and chemical properties.

Defining a blend of ingredients to build an adequate excipient to a dosage form is not always a direct process and can be time-consuming as the evaluation of the performance needs to be done in a trial-and-error way.

One way to understand the APIs' properties is through the **Biopharmaceutical Classification System** – BCS, a process that correlates two important characteristics of APIs: solubility, and permeability (their capacity to cross the gastrointestinal barrier).

Both these features are of high relevance to ensure the adequate performance of the API inside our body, and therefore, guarantee successful treatments.

The BCS divides the ingredients into 4 different classes:

Solubity	Biopharmaceutical Classification System Class	Permeability
HIGH	I	HIGH
LOW	II	HIGH
HIGH	III	LOW
LOW	IV	LOW

Both classes I and III have highly soluble APIs, which means that once they are inside our bodies, they are rapidly dissolved in the gastric medium, and only need adequate permeation through the intestinal barriers.

DiluCap SLD is a ready-to-use excipient that was specially developed **to be used with Class I and III APIs**, by favoring their disintegration and improving their permeability in the gastrointestinal barrier, with no negative impact on their solubility.

DiluCap SLD is physiologically inert and free from allergens such as lactose, gluten, soy, and others.

DiluCap SLD provides to the pharmacist:

- Avoidance of segregation between particles
- The preservation of the API stability
- Dose accuracy among capsules due to adequate particle distribution
- High-performance formulations with adequate bioavailability
- Better handling of different powders and great flow properties
- Proven functionality
- Reproducibility in every batch
- Reduction of process time and number of items in stock

For each API, there is a right DiluCap excipient:

DiluCap **SLD**   DiluCap **PSD**   DiluCap **SR**

DiluCap **Hygro**   DiluCap **Antioxi**   DiluCap **OD**

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