

FAQ: Adipose-Derived Stromal Vascular Fraction

How did you determine which ISBT 128 nomenclature is appropriate for adipose-derived stromal vascular fraction (AD-SVF)?

ICCBBA thanks Sergio Querol (*Banc de Sang i Teixits [BST]*) for providing the following information.

To select the appropriate terminology for a product—in this case a cellular therapy product—it is important to note the following features of the ISBT 128 cellular therapy nomenclature:

- Class names for cellular therapy are in the format “type of cells, comma, source of cells”—e.g. “HPC, APHERESIS”, which ISBT 128 defines as, “A cell product containing hematopoietic progenitor cells obtained by apheresis.” Cellular therapy products are divided into two class name subcategories:
 - *Subcategory 1* is given at collection of the product. The product description code will describe the composition of the cell therapy products and it can be HPC, NC, or MNC. If these products undergo modification such as cryopreservation and thawing, the class will not change, but the modification is added into the product description as an attribute.
 - *Subcategory 2* is applicable after enumeration or manufacture/processing of the collected products—the product may be identified by the target cell population. These class names are based on the desired cell population thought to be present in the product.

The following items were taken into consideration when identifying suitable ISBT 128 nomenclature for the AD-SVF:

[References: Bourin *et al.* *Cytotherapy*, 2013; 0: 1 – 8 | Oberbauer *et al.* *Cell Regeneration* (2015) 4:7 DOI 10.1186/s13619-015-0020-0]

1. The initial product is a tissue obtained by surgical procedures, either intact tissue or lipoaspirate. According to the Tissues section of the *ISBT 128 STANDARD, Standard Terminology for Medical Products of Human Origin* document (ST-002), at collection the class would be: **ADIPOSE TISSUE**.
2. Cell isolation: Enzymatic (collagenase, trypsin or dispase) or non-enzymatic (mechanical isolation using shear, centrifugal, radiation force and pressure). After erythrocytes lysis and washing, the stromal vascular fraction (SVF) is obtained. These are in a heterogeneous population. Under a cellular perspective, this could be considered a *Subcategory 1* product. This product would be named **NC, ADIPOSE TISSUE**.
3. From SVF and after culture of the plastic-adherent fraction, the adipose-tissue derived adherent cells (ASC) can be obtained. This is a more homogeneous population and can be compared /ascribed to be mesenchymal stromal /stem cells.
 - a. Definitions: A stromal cell is a connective tissue cell of any organ. A progenitor cell is a cell with limited proliferation potential that is able to differentiate into one or several specific cell types. A stem cell, in addition to multipotency, is able to self-renew.
 - b. This product would be considered a *Subcategory 2* product. This product would be named **MSC, ADIPOSE TISSUE**. In addition, attributes for indicating “cultured” and additives used for culturing—“Cultured:Yes” and “Other Additives:Yes” respectively—could be indicated in the product description and/or accompanying documentation.
 - c. MSC category could be any stromal cell derivative from the following (non-limited) sources: bone marrow, muscle, connective tissue, skin, placenta, whole blood, cord blood, synovium, periosteum, and perichondrium. Nomenclature would be MSC, MARROW, etc.
4. Additional “high-level” or “necessary” attributes can be added to the product’s description—e.g. “10 % DMSO” of the Cryoprotectant attribute group.