

Code	Name	Description	FK Characteristic Code	Dflag	Snum
WHL	Whole Organism	Subject or result of analysis consists of entire organism. Whole Organism describes the part of an organism present for analysis NOT the type of sample collected. Note that whole does not necessarily imply intact	Biopart	Y	1
WHLNOGUT	Whole, no gut	Subject or result of analysis consists of organism from which the gut (including all contents) has been removed	Biopart	Y	2
WHLNOSTM	Whole, no stomach	Subject or result of analysis consists of organism from which the stomach (including all contents) has been removed	Biopart	Y	3
GUT	Gut, without contents	Subject or result of analysis consists of the gastrointestinal tract from the anterior esophagus to the pyloric sphincter, which includes the stomach	Biopart	Y	4
GUTCONTONLY	Gut Contents Only	Subject or result of analysis consists of entire content of gut without any gut tissue included	Biopart	Y	5
GUTWCONT	Gut, with contents	Subject or result of analysis consists of gut with all contents, including food and digestive juices, intact	Biopart	Y	6
STM	Stomach, without contents	Subject or result of analysis consists of the organ in vertebrates which serves as a receptacle for food and in which the early stages of digestion occur (i.e., the stomach). Stomach does not include other parts of the gastrointestinal tract	Biopart	Y	7
STMCONTONLY	Stomach Contents Only	Subject or result of analysis consists of entire content of stomach without any gut tissue included. Stomach contents do not include matter from other parts of the gastrointestinal tract	Biopart	Y	8
STMWCONT	Stomach, with contents	Subject or result of analysis consists of stomach with all contents, including food and digestive juices, intact. Stomach does not include other parts of the gastrointestinal tract	Biopart	Y	9
ABD	Abdomen	Subject or result of analysis consists of the body cavity located between the chest and pelvis, which contains the stomach, intestines, and other digestive organs	Biopart	Y	10
ADR	Adrenal	Subject or result of analysis consists of the gland whose outer wall secretes cortisone and whose inner wall secretes adrenaline	Biopart	Y	11
ALIM	Alimentary Canal	Subject or result of analysis consists of the entire passage through which food passes to be digested and absorbed. This is also the passage from or by means of which wastes are eliminated	Biopart	Y	12

<u>Code</u>	<u>Name</u>	<u>Description</u>	<u>FK Characteristic Code</u>	<u>Dflag</u>	<u>Snum</u>
ARM	Arm	Subject or result of analysis consists of the forelimb, sometimes including the hand	Biopart	Y	13
BARK	Bark	Subject or result of analysis consists of the tough outside covering of the trunk, branches, and roots of trees and certain other plants	Biopart	Y	14
BILE	Bile	Subject or result of analysis consists of a bitter, greenish-yellow liquid secreted by the liver and stored in the gall bladder	Biopart	Y	15
BLOOD-CEL	Blood, cells	Subject or result of analysis consists of the cellular portion of blood (e.g., red cells, white cells)	Biopart	Y	16
BLOOD-ERY	Blood, erythrocytes	Subject or result of analysis consists of blood cells that contain hemoglobin. Also known as red blood cells	Biopart	Y	17
BLOOD-GRAN	Blood, granulocytes	Subject or result of analysis consists of blood cells that contain granules in their cytoplasm that are visible upon staining (e.g., neutrophils, eosinophils, basophils)	Biopart	Y	18
BLOOD-LYM	Blood, lymphocytes	Subject or result of analysis consists of white blood cells with dense nuclei that are involved in the immune response. Certain lymphocytes produce antibodies while others are primarily involved in cell-mediated immunity	Biopart	Y	19
BLOOD-MON	Blood, monocytes	Subject or result of analysis consists of white blood cells with kidney-shaped nuclei that ingest foreign particles as part of the immune response	Biopart	Y	20
BLOOD-PLS	Blood, plasma	Subject or result of analysis consists of the liquid part of the blood	Biopart	Y	21
BLOOD-PTLT	Blood, platelets	Subject or result of analysis consists of the disklike structures found in the blood that act to arrest bleeding (also know as thrombocytes)	Biopart	Y	22
BLOOD-WHL	Blood, whole	Subject or result of analysis consists of the fluid tissue that circulates throughout the body in the veins, arteries, and capillaries of vertebrates. It is composed of a fluid plasma and semisolid red and white blood cells and platelets	Biopart	Y	23
BODY	Body	Subject or result of analysis consists of the main part or trunk, apart from the head, limbs, or tail	Biopart	Y	24

Code	Name	Description	FK Characteristic Code	Dflag	Snum
BODY-WALL	Body Wall	Subject or result of analysis consists of the layers of tissue, including skin, connective tissue, and hypaxial muscle, which surround and contain the internal structures of the body	Biopart	Y	25
BONE	Bone Tissue	Subject or result of analysis consists of the hard tissue forming the substance of the skeleton. Not that bone tissue may consist of individual bones but not of bones that are connected	Biopart	Y	26
BONE-ACELL	Bone, acellular	Subject or result of analysis consists of bone without cells, such as found at the base of placoid scales in some fish	Biopart	Y	27
BONE-MRW	Bone, marrow	Subject or result of analysis consists of the soft, vascular tissue that fills the cavities of most bones	Biopart	Y	28
BRAIN	Brain	Subject or result of analysis consists of the soft, grayish and whitish mass of nerve cells and nerve fibers enclosed in the skull or head of vertebrate animals	Biopart	Y	29
CONN	Connective Tissue	Subject or result of analysis consists of the tissue that connects, supports, or encloses other tissues, bones, and organs in the body	Biopart	Y	30
DIGEST	Digestive Gland	Subject or result of analysis consists of an organ which separates certain substances from the blood and changes them into secretions which aid digestion	Biopart	Y	31
EAR	Ear	Subject or result of analysis consists of the part of the body by which vertebrates hear	Biopart	Y	32
EDB	Edible Portion	Subject or result of analysis consists of the parts of the body that can be ingested by and are non-toxic to animals	Biopart	Y	33
EGG	Egg/ Ovum	Subject or result of analysis consists of a female germ cell or gamete	Biopart	Y	34
EYE	Eye	Subject or result of analysis consists of the organ of sight	Biopart	Y	35
FAT	Fat/Adipose Tissue	Subject or result of analysis consists of the solid triglyceride substance that is insoluble in water and is largely composed of carbon, hydrogen and oxygen, or the tissues composed primarily of this substance	Biopart	Y	36

Code	Name	Description	FK Characteristic Code	Dflag	Snum
FECES	Feces	Subject or result of analysis consists of waste matter eliminated through the anus	Biopart	Y	37
FILLET-BF	Fish Fillet, with belly flap	Subject or result of analysis consists of the boneless, edible tissue that has been removed from both sides of the body of a fish and the flap of tissue removed or cut back to allow removal of the internal organs	Biopart	Y	38
FILLET-LO	Fish Fillet, left, skin off	Subject or result of analysis consists of the boneless, edible tissue, without skin, which has been removed from the left side of the body of a fish	Biopart	Y	39
FILLET-LS	Fish Fillet, left, skin on	Subject or result of analysis consists of the boneless, edible tissue, with skin, which has been removed from the left side of the body of a fish	Biopart	Y	40
FILLET-RO	Fish Fillet, right, skin off	Subject or result of analysis consists of the boneless, edible tissue, without skin, which has been removed from the right side of the body of a fish	Biopart	Y	41
FILLET-RS	Fish Fillet, right, skin on	Subject or result of analysis consists of the boneless, edible tissue, with skin, which has been removed from the right side of the body of a fish	Biopart	Y	42
FILLET-WO	Fish Fillet, whole, skin off	Subject or result of analysis consists of the boneless, edible tissue, without skin, which has been removed from both sides of the body of a fish	Biopart	Y	43
FILLET-WS	Fish Fillet, whole, skin on	Subject or result of analysis consists of the boneless, edible tissue, with skin, which has been removed from both sides of the body of a fish	Biopart	Y	44
FLWR	Flower	Subject or result of analysis consists of the part of the plant that produces the seed and has petals (distinction between stamen and pistil either not made or not important)	Biopart	Y	45
FOOT	Foot	Subject or result of analysis consists of the end part of a leg, containing the tarsus, metatarsus, and phalanges bones	Biopart	Y	46
FRUIT	Fruit	Subject or result of analysis consists of the matured ovary of a seed plant, composed of the seeds, the tissues connected with them, and their covering	Biopart	Y	47
FTHR	Feather	Subject or result of analysis consists of a part of the light, thin growth that covers a birds skin, usually consisting of a partly hollow shaft bearing flat vanes formed of many parallel barbs	Biopart	Y	48

Code	Name	Description	FK Characteristic Code	Dflag	Snum
GALL	Gall Bladder	Subject or result of analysis consists of the sac attached to the liver in which excess bile is stored until needed	Biopart	Y	49
GILL	Gill	Subject or result of analysis consists of the part through which animals that breathe in water intake oxygen and expel carbon dioxide	Biopart	Y	50
HEAD	Head	Subject or result of analysis consists of the body part containing the brain, eyes, ears, nose, and mouth	Biopart	Y	51
HEART	Heart	Subject or result of analysis consists of the hollow, muscular organ that pumps the blood throughout the body of a vertebrate by contracting and relaxing	Biopart	Y	52
INT	Intestine	Subject or result of analysis consists of the part of the alimentary canal extending from the lower terminus of the stomach to the anus	Biopart	Y	53
KIDNEY	Kidney	Subject or result of analysis consists of an organ in the bodies of vertebrate animals that separates waste matter from the blood and passes it off through the bladder as urine	Biopart	Y	54
LEAF	Leaf	Subject or result of analysis consists of the thin, usually flat, green part of a plant that grows on the stem or up from the roots	Biopart	Y	55
LIVER	Liver	Subject or result of analysis consists of the large, reddish-brown organ in vertebrate animals that secretes bile	Biopart	Y	56
LIVER-EDB	Liver, edible portion	Subject or result of analysis consists of the parts of the liver that can be ingested by and are non-toxic to other animals	Biopart	Y	57
LUNG	Lung	Subject or result of analysis consists of the saclike, spongy organ by means of which the blood receives oxygen and is rid of carbon dioxide in vertebrates that breathe air	Biopart	Y	58
MILK	Milk	Subject or result of analysis consists of the white liquid secreted by the mammary gland for the nourishment of young	Biopart	Y	59
MIXED	Mixed Parts	Subject or result of analysis consists of more than one type of biopart, but not whole organism or whole organism without gut	Biopart	Y	60

Code	Name	Description	FK Characteristic Code	Dflag	Snum
MUSC	Muscle/ Muscle Tissue	Subject or result of analysis consists of the contractile tissue in the bodies of animals (distinction between visceral, somatic, and cardiac is either unknown or unimportant)	Biopart	Y	61
MUSC-CARD	Muscle, cardiac	Subject or result of analysis consists of the muscles that form the walls of the heart (not the heart in its entirety)	Biopart	Y	62
MUSC-SOM	Muscle, somatic	Subject or result of analysis consists of the muscles of the partial serosa (lines coelomic cavities) or the connective tissue associated with appendicular musculature (excludes visceral muscles). Also known as striated muscle tissue	Biopart	Y	63
MUSC-VSRL	Muscle, visceral	Subject or result of analysis consists of the muscles of the gut, inner organs, or visceral serosa (covers internal organs and forms mesenteries that suspend them in coelomic cavities). Also known as smooth muscle tissue	Biopart	Y	64
NERVE	Nerve Tissue	Subject or result of analysis consists of the fibers made up of neurons through which impulses, especially of sensation and motion, pass between the brain or spinal cord and other parts of the body	Biopart	Y	65
OTOL	Otolith	Subject or result of analysis consists of the calcareous body in the inner ear of lower vertebrates and some invertebrates, which is helpful in maintaining equilibrium	Biopart	Y	66
OVARY	Ovary	Subject or result of analysis consists of the organ of female or hermaphroditic animal in which eggs are produced	Biopart	Y	67
PANC	Pancreas	Subject or result of analysis consists of the large gland of vertebrates that is located near the stomach and secretes insulin, glucagon, and pancreatic juice	Biopart	Y	68
PISTIL	Pistil	Subject or result of analysis consists of the part of the flower that produces seeds that, when complete, consists of an ovary, a style, and a stigma	Biopart	Y	69
ROOT	Root	Subject or result of analysis consists of the part of a plant that grows downward (usually into the ground), to hold the plant in place, absorb water and mineral foods from the soil, and often store food material	Biopart	Y	70
SALIVA	Saliva	Subject or result of analysis consists of the colorless, watery fluid that the salivary glands secrete into the mouth to keep it moist, aid in chewing and swallowing food, and start digestion	Biopart	Y	71
SCALE	Fish Scales	Subject or result of analysis consists of the thin, flat, hard plates that make up the outer covering of many fishes	Biopart	Y	72

Code	Name	Description	FK Characteristic Code	Dflag	Snum
SEED	Seed	Subject or result of analysis consists of a fertilized and mature ovule capable of germination into a plant similar to that from which it came	Biopart	Y	73
SKEL	Skeleton	Subject or result of analysis consists of the framework of connected bones and/or cartilage in vertebrates that supports the muscles and organs of the body	Biopart	Y	74
SKIN	Skin	Subject or result of analysis consists of the outer layer(s) of tissue on an animal body	Biopart	Y	75
SPLEEN	Spleen	Subject or result of analysis consists of the lymphoid organ near the stomach or intestines that stores blood, disintegrates old blood cells, and helps filter foreign substances from the blood	Biopart	Y	76
STMN	Stamen	Subject or result of analysis consists of the part of a flower that contains pollen, composed of a slender, threadlike stem or filament which supports the anther	Biopart	Y	77
STEM	Stem	Subject or result of analysis consists of the main part of a tree, shrub, or other plant that supports the branches	Biopart	Y	78
TENT	Tentacles	Subject or result of analysis consists of the long, slender, flexible growths, usually occurring on the head or around the mouth of an animal, that are used to touch, hold, or move	Biopart	Y	79
TESTES	Testes	Subject or result of analysis consists of the reproductive glands of a male vertebrate animal that secrete sperm	Biopart	Y	80
TUBER	Root/Tuber	Subject or result of analysis consists of the solid, thickened portion or outgrowth of an underground stem that bears modified axillary buds from which new plants may arise	Biopart	Y	81
URINE	Urine	Subject or result of analysis consists of the waste product of the body of vertebrates that is excreted by the kidneys	Biopart	Y	82
WING	Wing	Subject or result of analysis consists of the movable part of a bird, insect, or bat that is used for flying, or the corresponding part in a bird or insect that cannot fly	Biopart	Y	83
WOOD	Wood	Subject or result of analysis consists of the hard, fibrous substance that makes up the trunk and branches beneath the bark of trees and shrubs	Biopart	Y	84