

Fine Structure of Venom Glands of the Scorpion *Mesobuthus gibbosus* (BRULLÉ, 1832) (Scorpiones: Buthidae)

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Abstract: The objective of the present study was to describe the functional morphology, histology, and ultrastructure of venom glands of *Mesobuthus gibbosus* (BRULLÉ, 1832) for the first time using a light microscope, scanning electron microscope (SEM), and transmission electron microscope (TEM). The venom glands are situated in the last segment of the metasoma, named the telson. The telson contains a pair of venom glands equal in size and shape. The two glands are segregated within the bulbous base of the telson by striated muscular bundles, and the outer surface of the venom glands is surrounded by a cuticle. An internal layer constitutes the secretory epithelium. This epithelium is made up of simple and columnar cells. The nucleus and organelles involved in synthetic activity of the cell are situated in the basal portion of the cells. In the apical portion of the cells near the gland lumen, there are many secretory granules of different sizes, shapes, and electron densities. All types of secretory materials are located in vesicles limited by the biomembranes.

Key words: *Mesobuthus gibbosus*, scorpion, venom gland, fine structure