The second thoracic dorsal nerve root ganglia are swellings located on the first thoracic dorsal roots, proximal to where the dorsal roots join with the second thoracic ventral roots. They are situated in the intervertebral foramina between T2 and T3, immediately lateral to the perforations of the dura by the dorsal roots.

The dorsal root ganglia are formed by the cell bodies of afferent somatic and visceral neurons. Each neuron has a single short axon, which divides into a medial branch, which enters the spinal cord via the dorsal root, and a lateral branch, which passes peripherally to a sensory end organ.