The number of thread groups \( Q \) is equal to the number of query sequences to be aligned. The number of threads \( R_{Pad} \) in a thread group is equal to the smallest multiple of 32 that is larger than the number of reference sequences in the inter-reference vector.

All threads in a thread group align the same query sequence to a different reference sequence. Every thread group aligns a different query sequence to all reference sequences in the inter-reference vector.