Norepinephrine (NE) is a neurotransmitter with significant roles in the central nervous system (CNS). Within the CNS, NE modulates cognitive functions, including working memory, learning and attention, and memory consolidation. The μ-Opioid-Receptor (MOR) has been shown to contribute to mood regulation, as dysfunctional MOR signaling leads to anhedonia, social withdrawal, and alogia. Schizophrenia's pathophysiology could provide a potential CNS connection, as both MOR and NE contribute to its symptomatology, although this interaction has not been extensively studied. The higher prevalence of schizophrenia in males suggests the possibility of molecular sex differences in the NE and MOR systems. We used immunohistochemistry to map the expression of MOR across the NE system to investigate anatomical and sex differences in the A1 and BNST regions to address this knowledge gap. Our results demonstrated a significant difference in MOR expression between male and female mice in the A1 nucleus–with male mice showing lower levels of expression–-and no significant difference in MOR expression in the BNST. These results highlight the importance of investigating molecular sex differences in the interaction of these two systems for the development of sex-specific therapeutic treatments for schizophrenia.