```
is_member_cons  THM

⊢  ∀eq:{T≡₂}, t:T, L:T List. t(∈eq) (t.L)  by AbReduce 0 THEN UnivCD
|
1. T : Type
2. eq : {T≡₂}
3. t : T
4. L : T List
⊢  if eq(t,t)→ true₂ else t(∈eq) L fi  by IfThenElseCases 0
|
|\
| .....truecase .....
| 5. eq(t,t) = true₂
| ⊢  true₂
|   by BackThru Thm* ∀P:𝔹. P ⟺ P = true₂    {assert_iff_btrue}
|
.\
. .....falsecase .....
. 5. eq(t,t) = false₂
. ⊢  t(∈eq) L
. | by FwdThru Thm* ∀P:𝔹. ¬P ⟺ P = false₂    {not_assert_iff_bfalse}
. |    [-1]
. |    THEN
. |    Analyze -1
. |
. ⊢  eq(t,t)  by Equivalence 2
. |
. 3. eq ∈ T→T→𝔹
. 4. ∀x:T. eq(x,x)
. 5. ∀x,y:T. eq(x,y) ⟺ eq(y,x)
. 6. ∀x,y,z:T. eq(x,y) ⇒ eq(y,z) ⇒ eq(x,z)
. 7. t : T
. 8. T List
. 9. eq(t,t) = false₂
. ⊢  eq(t,t)  by HypBackchain THEN Trivial
END
```